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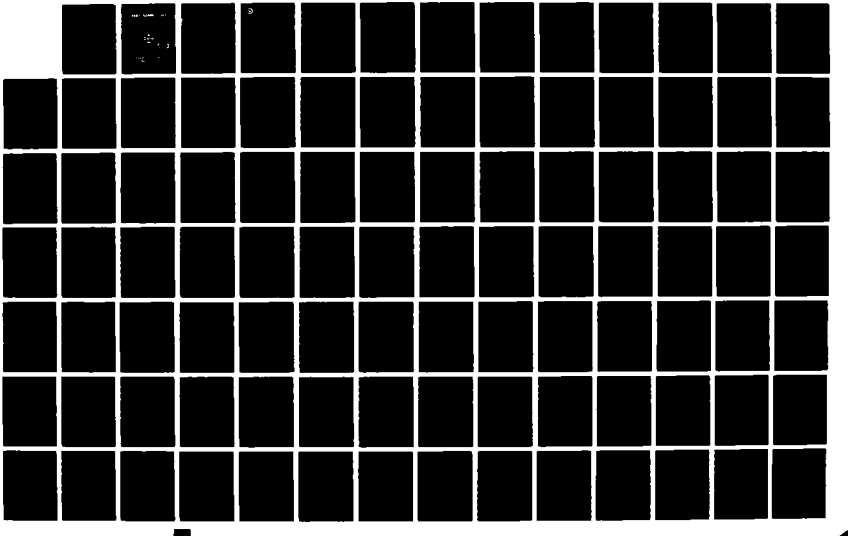

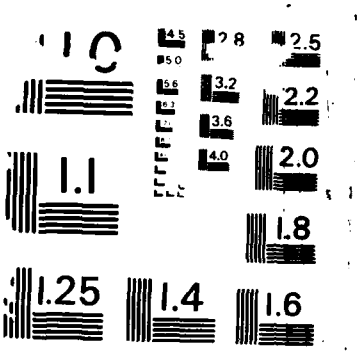

(1)

ARMY TRAINING STUDY

TRAINING EFFECTIVENESS ANALYSIS 1978

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AD-A194 143

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DEPARTMENT OF THE ARMY
HEADQUARTERS US ARMY TRAINING STUDY
FORT BELVOIR, VIRGINIA 22060

ATCG-ATS

10 April 1978

SUBJECT: Revised Army Training Study (ARTS) TEA 78 Management System Package

SEE DISTRIBUTION

1. References:

a. Training Developments Study Directive: Army Training Study (ARTS), dated 6 Oct 1977.

b. Director, ARTS Letter of Transmittal, TEA 85, dated 13 Jan 1978.

c. Director, ARTS Letter: Army Training Study (ARTS) TEA 78 Management System, dated 5 April 1978.

2. At Inclosure 1 is the revised ARTS TEA 78 Management System Package. This package reflects the changes that were made in reference c as a result of visits of ARTS staff members to TRADOC proponent schools.

3. At Inclosure 2 is a summary of all changes as coordinated with and agreed to by the TRADOC proponent schools. Corrections have been made to include changes proposed for each test.

4. ARTS will devote increased study effort to analysis of evidence that can be derived from test activities in TEA 78. Validity of the TEA 78 test results is essential to the evolution of the Battalion Training Model. ARTS will drive hard to assist both testers and supporting test units in ensuring a quality effort. We solicit the active, aggressive support of systems work team members, analysts, testers, testees and the multitude of people, soldiers and civilians alike who have already contributed so much to ARTS.

ATCG-ATS 10 April 1978
SUBJECT: Revised Army Training Study (ARTS) TEA 78 Management System Package

5. Questions concerning any aspect of this package should be referred to ARTS staff. POC: LTC Bloedorn and LTC Stone, Autovon 354-1461/1462/1463/1464.

FREDERIC J. BROWN
BG, USA
Director

2 Incl
1. Revised TEA 78 Mgt Sys Package
2. MFR: TEA 78 Tests

DISTRIBUTION:
2-Ea SAG Attendee
1-Ea TEA Consultant Gp Mbr
1-Ea Ed/Tng Consultant Gp Mbr
1-Ea Cost/Res Mgt Consultant Gp Mbr
1-Ea SWT
1-Ea ARTS LNO

ATCG-ATS 5 April 1978

SUBJECT: ARMY TRAINING STUDY (ARTS) TEA '78 MANAGEMENT SYSTEM

1. REFERENCES:

a. Training Developments Study Directive: Army Training Study (ARTS) dtd 6 Oct 1977.

b. Director, ARTS Letter of Transmittal, TEA '85, dtd 13 Jan 1978.

2. The purpose of this memorandum is to describe the ARTS system of managing the near-term study effort, Training Effectiveness Analysis (TEA) '78. This management system is designed to:

a. Coordinate TEA '78 field testing and research with other ongoing Army tests so that meaningful data from all tests will be available to ARTS analysts.

b. Provide a common report format which will facilitate analysis of the entire short term study effort in terms of the ARTS model, essential elements of analysis and the long term study, TEA '85.

c. Provide a "crosswalk" between TEA '78 objectives and test activities and the core objectives and situational variables of the long term study, TEA '85.

3. TEA '78 combined with the long term effort, TEA '85, form a TEA program which has been designed to quantify the current training system in order to justify allocation of required training resources. Additionally, this program should develop insights leading to training system improvements designed to provide an Army trained to win not just the first but rather all battles of the next war.

4. Concept: The TEA '78 management system provides:

a. A summary listing of all tests currently included in TEA '78 and additional tests that appear to provide information which will upgrade/validate data gathered in TEA '78 tests.

b. Work sheets for each system work team(SWT). These work sheets outline test objectives, sample sizes, links to the ARTS model, major test activities and scheduled reporting dates. The work sheets are designed to facilitate action officer coordination of ARTS-related efforts. They can also be used to trace the progress of field testing of those add-on tests which can be used in conjunction with SWT Study Plans. Recommendations concerning other ongoing tests which might support ARTS objectives are solicited. Work sheets are at

Inclosure 1.

c. TEA '78 ARTS Deliverable Summary Sheet. Attached to each test work sheet is a deliverable summary sheet which portrays the separate test activities in relation to various areas of training interest, i.e., training in the institution (T_I), individual training in the unit largely to Soldier's Manual tasks (T_S) or collective training in the unit, primarily to ARTEP tasks (T_A). These activities are also arrayed to portray their interface with TEA '85 core objectives and situational variables. Used in conjuction with reference 1b, these test activities are to be used in transition to testing designed to support long term study efforts. Further, the Deliverable Summary Sheet portrays the TEA '78 interface with ongoing ARTS efforts. Deliverable Summary Sheets are attached to work sheets at Inclosure 1.

d. The reporting handbook attached at Inclosure 2 has been prepared to assist in arraying test data results and conclusions by ARTS area of interest within the ARTS model. Further, the handbook provides guidance to ensure that data is delivered in such a manner that it is readily available to TEA '85 testers and those ARTS personnel developing the Battalion Training Model.

e. ARTS Training Resource Methodology, attached at Inclosure 3, will continue to be a guideline for the collection of resource data for the development of insights concerning the relationships between resources and training conducted both in the institution and in the unit.

4. At Inclosure 4 is an extract of the TEA '85 program, reference 1b, showing the core objectives, situational variables, test concepts and the TEA '85 master test plan. This extract should be used in conjunction with the TEA '78 independent evaluation plans to ensure that data deriving from TEA '78 test activities which will be needed for execution of TEA '85 and other study efforts (Battalion Training Model) is captured and included in all reports to ARTS.

5. ARTS POC are visiting each SWT to:

a. Review work plans and progress.

b. Assist in arranging technical support as appropriate.

c. Discuss report guidelines to identify necessary changes to the final procedures described in the reporting handbook (Inclosure 2). These guidelines encompass how tests will relate to the ARTS Model, objectives, EEA, and situational variables, and subsequent ARTS excursions.

ATCG-ATS 5 April 1978
SUBJECT: ARMY TRAINING STUDY (ARTS) TEA '78 MANAGEMENT SYSTEM

6. ARTS POC's for the administration of this system are:

a. LTC G. W. Bloedorn & LTC T. Stone AV 354-1461/62/63
M60A1
MOS 63/C, H
CAMMS
XM-1 OT II
REALTRAIN
TIE TEST
GENERAL SURVEY ON TRAINING REQUIREMENTS

b. LTC P. Zielenski AV 354-1461/62/63/64
ARTY FO 13 F Exported Tng
ARI CANNON CREW Turn-over
TACFIRE Post OT III
REDEYE
AIT COMMON SKILLS RETENTION - 13B

c. LTC W. Valen AV 354-1461/62/63/64
TOW
11B P4
O5C

FREDERIC J. BROWN
BG, USA
Director

4 Incl.
1. SWT Worksheets and ARTS Deliverable Summary Sheets
2. Reporting Handbook
3. ARTS Training Resource Methodology
4. TEA '85 Extract

SWT WORKSHEETS AND ARTS

DELIVERABLE SUMMARY SHEETS

ANNEXES:

A. M60A1

B. REDEYE

C. TOW

D. FO

E. 63C/H

F. 05C/F

G. ADD-ON TESTS

INCL 1

ARMY TRAINING EFFECTIVENESS ANALYSIS 1976 TEST PROGRAM (SHORT TITLE: TEA 78)

WT	TEST/STUDY TITLE	TRADOC SCHOOL ANALYTICAL AGENCY	SAMPLE SIZES	TEST UNITS	LINKS TO ARTS MODEL	LINKS TO TEA 85 CORE & SITUATIONAL VARIABLES	TEST DATES & MAJOR ACTIVITIES	INTERIM/FINAL REPORT DATE	REMARKS
M60A1	TANK CREW TURBULENCE RESEARCH	USAARMS/ARI	1 TK BN 1 SEP TK CO.	2 BN, 34 ARN CDEC TK CO	PROG TO PROF	CORE: A&B VAR: 12, 16&25	TABLE VIII 13-24 MAR 78. NON-11E TRAIN-UP 29 MAR TO 6 APR 78. CDEC TEST 15-25 MAY 78.	I-10 MAY F-DRAFT BY 10 JUN	FINAL RPT SUBJ TO ARI APPROVAL
M60A1	PROFICIENCY & RETENTION TESTS	USAARMS/ARI	1000 BAT TESTEES 200-300 UNIT TROOPS	24ID, 3AD	RES TO PROF PROG TO PROF	CORE: B, C&D VAR: 3&18	28-29 MAR FT STEWART 17-20 APR USAREUR	I-7 APR F-7 MAY	
M60A1	MODULAR TRAINING FOR R.C.	USAARMS/ARI	90 TK CREWS	49AD (ARNG)	PROG TO PROF RES TO PROF	CORE: A, B, VAR: 3, 19&25	49AD READINESS TEST 3-18 JUN. BN TRAIN-UP DURING FY79. 49AD READINESS TEST JUN 79	I-UNKNOWN F-UNKNOWN	
M60A1	MODIFIED M60A1 WSTEA	USAARMS/TRASANA	400 TK CREWS	4ID, 3ID	PROG TO PROF (INPUT FOR WAR MDL) PROP TO CE	CORE: A, B VAR: 16, 17 18&25	4ID 16 JAN-5 JUN 78 3ID 11 FEB-15 MAR 78	I-N/A F-1 JUL	
M60A1	SCALED RANGE SUB CALIBER TEST	USAARMS/USATCA	400 BAT TESTEES	194 AR BDE USATCA 1 TNG BDE	RES TO PROF	CORE: B VAR: 3, 18 20&25	FIRE TABLE I-VIIC 15 MAY-AUG 78 15 MAY 12 JUN	I-PHASE 1 30 AUG F-T+180 DAYS EST 9 NOV	
M60A1	TRAINING TIME RATIO	USAARMS/ARTS	1 BDE SIZE (3-4 BN) SAMPLE OF CMDRS & TNG STAFF	4ID	PROG TO PROF	CORE: A VAR: 3&11	1-2 DAY SEMINAR USAARMS/ARTS/4ID LATE APR 78	I-31 MAY F-1 JUL	
M60A1	XM1 OT II	USAARMS/OTEA	1 XM1 PLT 1 M60A1 PLT 2 AGGRESSOR TK PLTS	FT BLISS,TX UNITS TBD	RES TO PROF PROG TO PROF	CORE: A, B, C&D VAR: 2, 13&24	OT II MAY-DEC 78	I-EST 1 FEB 79 F-EST 1 MAR 79	

ARMY TRAINING EFFECTIVENESS ANALYSIS 1978 TEST PROGRAM (SHORT TITLE: TEA 78)

SWT	TEST/STUDY TITLE	TRADOC SCHOOL ANALYTICAL AGENCY	SAMPLE SIZES	TEST UNITS	LINKS TO ARTS MODEL	LINKS TO TEA 85 CORE & SITUATIONAL VARIABLES	TEST DATES & MAJOR ACTIVITIES	INTERIM/FINAL REPORT DATE	REMARKS
RED-EYE	REDEYE ENGAGEMENT TEST	USAADS/TRASANA	AIT: 120 TROOPS UNIT: 25-150/ UNIT RC: 25/UNIT	FORSCOM USAREUR OTHER (SEE WORK SHEET)	RES TO CE	CORE: A, B&D VAR: 3, 16, 18, 19, 20&25	20 MAR-7 JUL-FORSCOM 24 APR-19 MAY-USAREUR 15-19 MAY-KOREA (SEE WORK SHEET)	I-N/A F- DRAFT 1 JUL	
TOW	INSTITUTIONAL TRAINING FOR 11H	USAIS/USAIS	6 INF BNS 1 TLAT BN	4ID, 9ID TLAT BN (ARNG)	RES TO PROG TO PROF	CORE: B VAR: 3&12	DATA GATHERING 17 FEB-30 APR	I-15 JUN F-20 JUL	
TOW	COMPARISON OF INSTIT TOW TRAINING VS UNIT TOW TRAINING	USAIS/USAIS	6 INF BNS 1 TLAT BN P4 CRS STU-DENTS	4ID, 9ID TLAT BN (ARNG)	RES TO PROG TO PROF	CORE: B VAR: 3,5&12	DATA GATHERING 1 FEB-30 APR	I-15 JUN F-20 JUL	
TOW	UNIT PROFICIENCY MAIN-TENANCE AND ITV TRAINING	USAIS/USAIS	6 INF BNS 1 TLAT BN	4ID, 9ID TLAT BN (ARNG)	RES TO PROG TO PROF	CORE: B VAR: 3&12	DATA GATHERING 1 FEB-30 APR	I-15 JUN F-20 JUL	
TOW	TOW/ITV TRAINING WEAKNES-SES (STUDY)	USAIS/USAIS	6 INF BNS 1 TLAT BN P4 CRS STU-DENTS	4ID, 9ID TLAT BN (ARNG)	RES TO PROG TO PROF	CORE: B VAR: 3	DATA GATHERING 1 FEB-30 APR	I-15 JUN F-20 JUL	
TOW	TOW TEA TEST	USAIS/TCATA	3 GROUPS OF 90 TROOPS EACH TOTAL 270	2AD	PROG TO PROF AND THROUGH WAR MDL TO CE	CORE: A VAR: 3, 12, 18, 19&25	13 MAR-20 APR	I-15 JUN F-20 JUL	
TOW	WAR GAME MODEL-RELATE LEVELS OF TOW PROF TO CE	USAIS/TRASANA	DATA FROM TOW TEA PLUS 13 TOW CREWS	197 INF BDE	PROF THROUGH WAR MDL TO CE	CORE: A VAR: 18	DATA GATHERING 13 MAR-20 APR	I-30 JUN F-20 JUL	

ARMY TRAINING EFFECTIVENESS ANALYSIS 1978 TEST PROGRAM (SHORT TITLE: TEA 78)

SWT	TEST/STUDY TITLE	TRADOC SCHOOL ANALYTICAL AGENCY	SAMPLE SIZES	TEST UNITS	LINKS TO ARTS MODEL	LINKS TO TEA 85 CORE & SITUATIONAL VARIABLES	TEST DATES & MAJOR ACTIVITIES	INTERIM/FINAL REPORT DATE	REMARKS
TOW	TOW GUNNER SELECTION CRITERIA (COMPARATIVE STUDY)	USAIS/ARI	RUN WITH TOW TEA 3 GROUPS OF 90 TROOPS EACH TOTAL 270	2AD	PROG TO PROF	VAR: 18&19	MODEL VALIDATED BY LIVE FIRE TOW TEA 13 MAR-28 APR	I-15 JUN P-28 JUL	
TOW	TLAT BN (ARNG) INSIGHTS ON RESERVE COMPONENT UNIQUE PROBLEMS AND INFORMAL EVALUATION OF TEC LESSONS	USAIS/USAIS	1 TLAT BN	TLAT BN (ARNG)	RES TO PROG TO PROF	CORE: B VAR: 12, 19&25	DATA GATHERING 1 FEB-30 APR	I-15 JUN P-28 JUL	
TOW	DIVISION RESTRUCTURING STUDY	USAIS/TCATA	3 INF BNS	1CAV	RES TO PROG TO PROF	CORE: A, B VAR: 19	PHASE 1 ENDED FEB 78 PHASE 2 SPRING 78	I-15 JUN P-28 JUL	
TOW	ITV OT III	USAIS/OTEA	1 MECH INF CO 1 CAV PLT	9ID	RES TO PROG TO PROF	CORE: A, C, D VAR: 12	15 JAN-30 APR	I-15 JUN P-28 JUL	
TOW	ITV CTEA STUDY	USAIS/USAIS	DATA FROM ITV OT III	STUDY	RES TO PROG TO PROF	CORE: B VAR: 3, 28&25	15 JAN-30 APR	I-15 JUN P-28 JUL	
TOW	TOW COSTING METHODOLOGY	USAIS/USAIS	9 INF BNS 1 TLAT BN	4ID 9ID 1CAV TLAT BN (ARNG)	RES TO PROG TO PROF	CORE: B VAR: 3	DATA GATHERING 1 FEB-30 APR	I-15 JUN P-28 JUL	
FO	FO/UNIT TNG TEST	USAPAS/TRASANA	144 TROOPS	4ID 2AD 1CAV	PROG TO PROF	CORE: A, B&C VAR: 16&17	DATES: TBD	I-1 JUL P-1 OCT	

ARMY TRAINING EFFECTIVENESS ANALYSIS 1978 TEST PROGRAM (SHORT TITLE: TEA 78)

SWT	TEST/STUDY TITLE	TRADOC SCHOOL ANALYTICAL AGENCY	SAMPLE SIZES	TEST UNITS	LINKS TO ARTS MODEL	LINKS TO TEA 85 CORE & SITUATIONAL VARIABLES	TEST DATES & MAJOR ACTIVITIES	INTERIM/FINAL REPORT DATE	REMARKS
FO	OBS FIRE TNG CTEA EXPANSION	USAPAS/TRASANA	393 TROOPS	4ID 9ID 2AD 1CAV, III CORPS, FT KNOX	PROG TO PROP	CORE: B VAR: 20&25	DATES: TBD	I-1 JUL F-1 DEC	
FO	SUITABILITY OF 13F EXPORT TRAINING	USAFAS/TRASANA	ANALYSIS OFT CTEA EXPANSION	NONE	INDIV TNG	CORE: A, B&C VAR: 3, 5, 12&15	ANALYSIS	I-15 DEC F-15 FEB 79	
63C/H	CONFIRM SQT AS A MEASURE OF PROFICIENCY	USAOCCS	APPROX 475 TROOPS E2-E4, APPROX 120 TROOPS E-5 AND ABOVE	1ID 4ID 5ID 49AD (ARNG) 8ID	PROG TO PROF	CORE: A VAR: 12&18	8ID 24-27 APR 1ID 8-11 MAY 4ID 6-18 MAR 5ID 21-25 FEB 49AD (ARNG) 12-15 JAN (FT HOOD, TX)	I-N/A F-AUG	ADMINISTRATION OF SQT TEST ORIGINALLY PLANNED FOR MAR-MAY HAS BEEN RESCHEDULED BY DA TO MAY-JUL. COMPUTER PROCESSING WILL ADD A MINIMUM OF 5-8 WEEKS
63C/H	IDENTIFY PROFICIENCY DEVELOPMENT PROFILES				PROG TO PROF	CORE: B, C&D VAR: 3, 12&18		I-APR-MAY* F-JUN *DATA SUMMARIES WILL BE PROVIDED AS COMPLETED	
63C/H	IDENTIFY COST EFFECTIVENESS OF INSTITUTIONAL AND UNIT TRAINING PROGRAMS				PROG TO PROF	CORE: B VAR: 5, 12&16	N/A* *DATA FROM 63C/H TESTS WILL BE INCLUDED IN MATERIALS STUDIED.	I-APR-MAY* F-15 JUN *DATA SUMMARIES WILL BE PROVIDED AS COMPLETED	
63C/H	IDENTIFY OPTIMUM DISTRIBUTION OF INDIVIDUAL TRAINING BETWEEN INSTITUTION AND UNIT				PROF TO CE (THEORETICAL LINK)	VAR: 3, 5, 18&20	N/A	I-APR-MAY* F-15 JUN *DATA SUMMARIES AS AVAILABLE	

ARMY TRAINING EFFECTIVENESS ANALYSIS 1978 TEST PROGRAM (SHORT TITLE: TEA 78)

SWT	TEST/STUDY TITLE	TRADOC SCHOOL ANALYTICAL AGENCY	SAMPLE SIZES	TEST UNITS	LINKS TO ARTS MODEL	LINKS TO TEA 85 CORE & SITUATIONAL VARIABLES	TEST DATES & MAJOR ACTIVITIES	INTERIM/FINAL REPORT DATE	REMARKS
63C/F	IDENTIFY ALTERNATIVES FOR TRAINING SELECTED PERSONNEL FOR MOBILIZATION		N/A	N/A	PROG TO PROF	VAR: 18&19	N/A	I-N/A F-15 JUN	
05C/F	COMPARE TASK PERFORMANCE OF SELF PACED AND GROUP PACED GRADUATES	USASIGS/ USASIGS	PART 1 224 TROOPS PART 2 ALL 05C/F SELF PACED GRADS 15 APR-30 JUN & ALL 05C/F OSUT GRADS 1 JUL-15 SEP	USASIGS STUDENTS	RES TO PROF	CORE: B	ALL TESTING DONE AT USASIGS. PART I COMPLETED. PART 2 15 APR-30 JUN, 1 JUL-15 SEP	I-PART 1 1 APR PART 2 1 JUL F-PART 1 1 APR PART 2 15 SEP	
05C/F	TEST PROFICIENCY OF 05C/F TEAMS IN FIELD UNITS	USASIGS/ USASIGS	230 TROOPS	24ID 1AD 49AD (ARNG	RES TO PROF	CORE: C VAR: 12&18	24ID TBD PROB MAY; 49AD (ARNG) 5-9 JUN, 12-15 JUN; 1AD TBD	I-MID JUN 78 F-1 JUL	
05C/F	COMPARE ALTERNATIVE UNIT TRAINING PROGRAMS	USASIGS/ USASIGS	SELECTED TROOPS OF THE 230 TESTED ABOVE. SPECIFIC NUMBER NOT AVAILABLE	24ID 1AD 49AD (ARNG	RES TO TNG PROG TO PROF	CORE: A&B VAR: 12, 16&19	ADMINISTERED AFTER COMPLETION OF ABOVE TESTING OF 05C/F IN FIELD UNITS, 24ID TBD PROB LATE MAY-JUNE. 49AD MID JUN. 1AD TBD	I-3 JUL F-TBD	
ADD-ON	RIFLE SQUAD REALTRAIN	USAIS/ARI	SIX RIFLE SQDS	N/A	PROG TO PROF	TBD SUBSEQUENT TO STUDY OF REPORT	11 APR-20 MAY 77	I-N/A F-ARI FIELD REPORT 11-92 DTD OCT 77	THIS IS AN ARI RESEARCH PROJECT
ADD-ON	ANTI-ARMOR REALTRAIN	ARI	ONE TK BN ONE MECH BN 6 FIST TM	4ID	PROG TO PROF	CORE: A, B, C&D VAR: 18, 20&25	JAN-MAR AT FT CARSON	I-EST 24 MAR F- EST 15 JUN	

ARMY TRAINING EFFECTIVENESS ANALYSIS 1978 TEST PROGRAM (SHORT TITLE: TEA 78)

[illegible]	TEST/STUDY TITLE	TRADOC SCHOOL ANALYTICAL AGENCY	SAMPLE SIZES	TEST UNITS	LINKS TO ARTS MODEL	LINKS TO TEA 85 CORE & SITUATIONAL VARIABLES	TEST DATES & MAJOR ACTIVITIES	INTERIM/FINAL REPORT DATE	REMARKS
ADD-ON	COMPUTER ASSISTED MAP MANEUVER (CAMMS)	CAC/CATRADA	5 BN COMMAND GROUPS	2-1ID 3-4ID	PROG TO PROF	CORE: A, B, C, D&E VAR: 16, 17, 19, 20&25	SCHEDULE OF BN TNG SESSION TBD	I-15 MAY F-1 JUL	PHASE I OF TEA 85 CAMMS/NTC TESTS
ADD-ON	TRAINING INSTRUMENTATION EVALUATION (TIE) TEST	TRADOC-DCST-/ CDEC	ARM HVY CO TM	CDEC FORSCOM UNIT TBD	PROG TO PROF	CORE: A&B VAR: 16, 17&25	PHASE I 31 JUL-26 AUG PHASE II 1 SEP-15 SEP	I-N/A F-EST 15 DEC	
ADD-ON	CANNON CREW TURNOVER (ADD-ON)	USAPAS/ARI	VAL: 8 HOW SECT TEST: 36 HOW SECT	III CORPS ARTY, 9ID (PENDING)	EFFECT OF TURBULENCE	CORE: C VAR: 16	VAL TRIAL 17 MAR. FT SILL. AUG FT LEWIS.	I-TBD F-TBD	
ADD-ON	*TACFIRE POST OT III* (ADD-ON)	*USAPAS/ARI*, FT HOOD	1 TACFIRE SYSTEM W/CREW	1CAV	PROG TO PROF	CORE: C&D VAR: 16	17 APR-JUL FT HOOD	I-JUL F-TBD	EMPHASIS ON LEARNING, DECAY & RE-TRAIN
ADD-ON	RETENTION & PROFICIENCY OF COMMON AIT SKILLS	ARI	500 TROOPS	III CORPS ARTY	PROG TO PROF	CORE: A,C&D VAR: 3	APR-MAY	I-1 JUL F-TBD	THIS IS AN ARI TEST

10 Apr 78

WORKSHEET

TITLE: M60A1 - TANK CREW TURBULENCE RESEARCH SCHOOL/AGENCY: USAARMC/FT KNOX ARI POC/PHONE: COL R. Maxham AV 464-3546 Dr. Ken Eaton AV 464-3450

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
1. To measure the effect of crew turbulence upon tank gunnery performance.	1. 45 crews (324 crews)	2d Bn 34th ARM (1AD 1977)	1. Tank crew stability questionnaire. (Includes all 1AD crews)	Table VIII 13-24 Mar	T_S, T_{S2}	1. Effects of turbulence on proficiency.	I-Analysis of turbulence by 10 Jun F-10 May
2. To validate the effects of modular training on AC non-MOS qualified non-proficient ARM crews.	2. 11 Tank Crews w/non-11E gunner loaders (22E0).		2. Demographic questionnaire. (AIR)	Gnr/ldr replacement (71L Tanker) train-up 29 Mar - 6 Apr 71L Tanker Gunnery 31 Mar - 8 Apr	T_A, T_{A2}	2. PROG to PROF	F-Draft 1 Jul
3. To validate the effects of modular training on AC MOS qualified non-proficient ARM Crews.	3. 17 Tank Crews (68 off/ EM)	USACDEC	3. Tank table VII, VIII scores.	CDEC Test EST 15-25 May			F- 1. Turbulence Report 10 Jun 2. Demographics (AIR) 1 Jul 3. Train-up 11E 1 Jul 4. RAMSRO Costs to Proficiency 1 Jul

TANK CREW TURBULENCE

DELIVERABLE SUMMARY

5 April 1978

TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S 1. Administer tank crew stability questionnaire to each tank crewman. 2. Orient/train-up 71L Tanker w/qualified TC & Drvr.	Variable 16: Determine effects of stability and turbulence.	To be used to adjust heuristic data on tank crew skills for armor bn. (95% battlefield data effort). 1. Determine frequency of retrain of tank crew SM skills as a function of different levels of turbulence extrapolated to company level. 2. Determine proficiency to SM level as function of turbulence. 3. Determine time to train and retrain to SM skill level for existing turbulence level. 4. To what other systems would this data apply? 5. To what other tasks within same system does data apply? 6. How much time and how many dollars are saved for train (71L) and retrain (11E) using modular train up packages? 7. What is proficiency delta as function of modular training programs?
T_{S2} 1. Conduct modular train-up for 71L Tanker. 2. Conduct modular train-up for 11E Tanker.	Core A: Continue validation of threat oriented SM/ARTEPs. Core B: Determine time/costs to achieve proficiency.	
T_A 1. Fire Table VIII w/normal crews. 2. Fire Table VIII w/scrambled crews.	Variable 16: Determine effects of stability and turbulence. Variable 12: Determine exportable training packages to support training.	
T_{AZ} 1. Fire Table VIII w/71L Tanker Snr/Ldr. 2. Fire Table VIII w/11E modular trained crews (Hunter Liggett, CA)	Variable 25: Validate the effectiveness and efficiency of training devices.	

10 Apr 78

WORKSHEET

TITLE: M60A1 PROFICIENCY & RETENTION OF BASIC ARMOR SKILLS SCHOOL/ACENCY: USAARMC/1 TNG BDE W/ARY POC/PHONE: COL R. H. Maxhaw - AV 464-3546

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
1. Measure proficiency of BAT IIE on Midcycle & TSQT.	1000 trainees	USATC 1st Tng Bde, 24ID, 3AD	1. Biographical data.	28-29 Mar	T_I, T_S	1. PROG to PROF (T_I & T_S)	
2. Measure individual retention of basic ARM skills in institution & units.	200-300 trainees		2. Records of tng of indiv in unit.	17-20 Apr		2. RES to PROF	I-Mid-Apr F-Mid-Jun INTERIM 1 JULY
3. Document time & resources dedicated to training & types of training administered from date of assignment to unit to retest date.	200-300 trainees		3. Mid-cycle & TSQT scores.				
4. Examine relationship of unit tng to skill retention.	200-300 trainees		4. Indiv tng experience survey.				
5. Examine relationship of demographic variables to proficiency & retention.	200-300 trainees		5. Supervisor's tng experience survey.				

M60A1 PROFICIENCY & RETENTION | DELIVERABLE SUMMARY | 5 April 1978

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. Measure proficiency attained by BAT in institution. 2. Document costs of training in institution.	Core B: Determine time/costs to achieve proficiency. Core C: Develop diagnostic tests to measure proficiency and decay levels. Core D: Determine decay rates and frequency of required retraining. Variable 3: Determine allocation of tasks between instit/unit. Variable 18: Determine effects of less capable trainees.	1. Determine time/costs to train to 95% proficiency on tank crew SM tasks. 2. Determine frequency/costs of re-train. 3. Validate 1 & 2 above with Table VIII results. 4. To what other systems does this data apply? 5. Determine time/costs/proficiency of training to 95% proficiency as a function of Selection Criteria scores (capability of trainees).
T_{S2}			
T_A	1. Document time & resources dedicated to training & types of training administered in unit.	Variable 18: Determine effects of less capable trainees.	
T_{A2}			

10 Apr 78

WORKSHEET

TITLE: M60A1 MODULAR TRAINING FOR RESERVE COMPONENTS — SCHOOL/AGENCY: USAARMS/ARI — POC/PHONE: ARI: DR. Don Haggard AV 464-3450 COL R. Maxham AV 464-3546

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
1. Determine proficiency acquired by ARNG ARM crewmen using modular training packets vs. current RC training methods.	90 ARNG TK crews of three TK Bns.	49AD (ARNG)	1. Survey of trainers & students.	Readiness Test 3-18 Jun	T_{S1}, T_{S2}	1. RES to PROF.	I-EST 31 Aug F-30 Sep 79
2. Document cost data associated w/each training packet (module).			2. Resource sheets from units.	Modular train-up for Bns during FY79 followed by readiness test of conventional training vs modular training	T_{A1}, T_{A2}	2. Relationship of T_S to T_A in RC.	
3. Validate training modules by comparing Readiness Test proficiency in FY78 w/comparable proficiency in FY79			3. Scores from readiness tests before & after training.			3. RES to PROF for RC.	
			4. Table VIIC scores FY78, FY79.			4. RES to T_{S2} & T_{A2} in RC.	

TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S 1. Readiness Test 3-18 Jun. 2. Readiness Test Jun '79.	Core A: Continue validation of threat oriented SM/ARTEPs. Variable 3: Determine allocation of tasks between instit/unit.	1. Validate against tank crew turbulence test data. . Time/costs to individual proficiency. . Time /costs to collective proficiency. 2. Determine most cost/time effective program to achieve collective proficiency of RC Bn.
T_{S2} 1. Document cost data associated w/each Training Packet (Module). 2. Validate Training Modules by comparing readiness test scores FY78 w/FY79.	Core B: Determine time/costs to achieve proficiency.	
T_A 1. Readiness Test 3-18 Jun. 2. Readiness Test Jun '79.	Core A: Continue validation of threat oriented SM/ARTEPs. Variable 3: Determine allocation of tasks between instit/unit. Variable 19: Evaluate rapid refresher training programs.	
T_{A2} 1. Document cost data associated w/each Training Packet (Module). 2. Validate Training Modules by comparing readiness test scores FY78 w/FY79.	Core B: Determine time/costs to achieve proficiency. Variable 25: Validate the effectiveness and efficiency of training devices.	

10 Apr 78

WORKSHEET

TITLE: M60A1 MODIFIED M60A1 WSTEA (PARAMETRIC ANALYSIS OF CREW) SCHOOL/AGENCY: USAARMS/TRASANA POC/PHONE: COL R. Maxham, USAARMS AV 464-3546 Mr. Ron Cooper, TRASANA AV 258-1494

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
1. Determine crew gunnery proficiency represented by Table VIII firing scores.	200 crews	4ID	1. Demographic data.	16 Jan-5 Jun	T_{S1}, T_{S2}	1. PROG to PROF	I-N/A F-1 Jul
2. Identify relationship between gunnery scores and combat effectiveness (war models).	200 crews 400 crews TOTAL	3ID	2. Training history.	11 Feb-15 Mar	T_{A1}, T_{A2}	2. Input to war mdl, i.e., PROF to CE.	
3. Assess level, type & source of training that produced proficiency.			3. Attitude surveys.			3. Link between PROG & PROF	
4. Determine correlation between personal history and training and proficiency with following: - effectiveness baseline for training analysis. - identify significant variables influencing crew proficiency.						4. PROF to CE	
5. To relate different gunner proficiency levels to CE through war model (TRASANA effort with CARMONETTE, possibly with BATTLE).							

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. Determine training history of individual. 2. Identify significant variables influencing crew proficiency such as background, physical characteristics, stability, training, and leadership.	Variable 16: Determine effects of stability and turbulence. Variable 18: Determine effects of less capable trainees. Variable 17: Determine effects of reduced off/NCO fill.	1. Determine SM proficiency as function of varying levels of turbulence extrapolated to company level. 2. Determine SM proficiency as a function of officer/NCO fill and availability for training. 3. Determine time/frequency/costs of SM tasks as a function of turbulence & officer/NCO fill. 4. Determine time/frequency/costs/proficiency of collective tasks as function of turbulence & officer/NCO fill.
T_{S2}	1. Identify level, type and source of training that produced proficiency.	Variable 25: Validate the effectiveness and efficiency of training devices.	
T_A	1. Obtain tank crew Table VIII scores. 2. Assess level, type and source of training that produced proficiency.	Core A: Continue validation of threat oriented SM/ARTEPs. Core B: Determine time/costs to achieve proficiency. Variable 16: Determine effects of stability and turbulence. Variable 17: Determine effects of reduced off/NCO fill.	
T_{A2}	1. Assess level, type and source of training that produced proficiency.	Variable 25: Validate the effectiveness and efficiency of training devices.	

10 Apr 78

WORKSHEET

TITLE: M60A1 SWT-SCALED RANGE SUBCALIBER TEST

SCHOOL/AGENCY: USAARMS/USATCA

POC/PHONE: USAARMS COL L. Lloyd AV 464-7750
USAARMS COL R. Maxham AV 464-3546

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
1. Obtain data on the effect of varying the number of subcaliber firings on main gun proficiency.	40 11E EST 100 19E (4 PLTs of 25 19E)	194 ARM BDE 1 Tng Bde USAARMC	1. Demographic data.	Fire Table I-VIIC 15 May - Aug 15 May 12 Jun	T_I, T_{S2}	1. Ind Tng RES to PROF	I-Phase I 30 Aug P-T+180 days EST 9 Nov
2. Determine optimal number of iterations to be used in basic armor training gunnery.	Each PLT w/fire 4 samples of 4 variations for a total sample of 400.		2. Table I-VIIC Score Cards 194 BDE (modified Table IV, Table VI modified to reflect Table IV)				
3. Determine resources to proficiency by determining costs associated with iterations.							
4. Correlate proficiency w/personal background/ physical observations.							

M60A1 SCALED RANGE SUB CALIBER EX

DELIVERABLE SUMMARY

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	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. Obtain demographic data. 2. Fire Tables IV-VI main gun by platoon. 3. Cost each main gun iteration & correlate cost to proficiency.	Core 8: Determine time/costs to achieve proficiency. Variable 3: Determine allocation of tasks between instit/unit. Variable 18: Determine effects of less capable trainees.	1. Determine the most cost/time efficient program to reach 95% proficiency on tank crew SM tasks. 2. Determine costs/time. 3. Determine frequency of this program vs frequency of regular program.
T_{S2}	1. Fire Scaled Range Subcaliber tables I-III. 2. Vary number of iterations on scaled range table IV. 3. Fire Table VIIC with DELFARE Cal .50. 4. Cost each iteration & correlate cost w/main gun/DELFARE proficiency.	Variable 20: Develop training concept to proficiency with reduced resources. Variable 25: Validate the effectiveness and efficiency of training devices.	
T_A			
T_{A2}			

10 Apr 78

WORKSHEET

TITLE: M60A1 SWT TRAINING TIME RATIO — SCHOOL/AGENCY: USAARMS/ARTS — POC/PHONE: LTC G. Bloedorn AV 356-1461, COL R. Maxham AV 464-3546

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
1. Determine the optimum ratio of individual training (T_S) to collective training (T_A) as a function of varying individual training time in the training base (T_I).	1. BDE size (3-4 Bn) sample of Cdrs & Tng staff	41D	1. Tng Base Alternatives POI w/alt unit T_S rqt's.	Ft Carson Survey to be conducted in late April.	$T_I - T_S$ $T_I - T_A$ $T_I - T_A$	PROG to PROF	I-31 May F- 1 Jul
2. Determine resource requirements for varying the lengths of training periods (12, 13, 14 & 15 week variations).			2. Questionnaire for unit commander & staff concerning preparation of alt unit tng programs.				
3. Determine the impact on unit training, readiness & installation responsibilities as a result of varying lengths of training periods (12, 13, 14 & 15 week variations).							

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. Prepare notional OSUT training programs to determine differing levels of SM skills for 19E/F BAT for 12, 13, 14 & 15 week courses. 2. Prepare list of SM skills in terms of hours & subjects to be taught in unit for 12, 13, 14, & 15 week courses. Determine resource requirements.		Determine unit collective proficiency as a function of additional weeks of individual training (1, 2, 3 & 4 weeks).
T_{S2}			
T_A	1. Determine impact on unit training programs, readiness & installation responsibilities as a result of varying BAT course length by conducting unit training seminar w/bn cmd & staff.	Core A: Continue validation of threat oriented SM/ARTEPs. Variable 3: Determine allocation of tasks between instit/unit. Variable 11: Determine effect of expanded OSUT for sel high-pri wpns.	
T_{A2}			

10 Apr 78

WORKSHEET

TITLE: M60A1 SWT ADD-ON XM-1 OTII

SCHOOL/AGENCY: USAARMS/OTEA

POC/PHONE: CSTE-TM-AR (OTEA) AV 289-2384
COL R. Maxham AV 464-3546

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
1. TEA 85 CORE OBJECTIVES: A. Validate threat oriented critical SM/ARTEP tasks, conditions & standards.	1. One XM-1 PLT	Ft Bliss, TX Units TBD	1. Demographic questionnaire.	May - Dec (T date 15 May)	T_I, T_S, T_A	1. RES to PROP	I-Raw Tng data avail from 10 Jul
B. Determine time/costs to proficiencies for critical indiv/coll tasks.	2. One M60A1 PLT		2. Training history.	(Train-up 15 May - 2 Jul)		2. PROG to PROP	F-T+285 (approx 1 Mar 79)
C. Develop diagnostic tests to measure indiv/coll learning decay levels.	3. Two aggressor TK PLTs		3. ARI developed diagnostic analysis.				
D. Determine decay rate & frequency of retraining required to sustain proficiency.							
2. TEA SITUATIONAL VARIABLES: 2. Resources/effect of tng common vs. tech skills only in tng base.							
13. Determine training packets to ensure supervisor competence.							
24. Develop tng programs to assimilate new equipment.							

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WORKSHEET

TITLE: REDEYE SCHOOL/AGENCY: USAADS FT BLISS POC/PHONE: CPT O'Toole 978-2340/3113
MR. Dale Tubbs USA TRASANA

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
1. To determine and associate training resource costs of REDEYE with those tasks essential to sustain and fight with the system.	1. AIT-120 troops	FORSCOM 4ID 82ABN 101ABN 1ID 9ID	1. ARI attitude tests. AIT and unit.	20-21 Mar, Ft S. Houston, TX ARR VII 22-24 Mar, Denver, CO ARR VIII	RES T_I, T_S, T_A, T_{S2}	RES to PROG	I-N/A F-Draft 1 Jul
2. To determine the relationship of training programs to proficiency. Of particular concern is the decay of proficiency as a function of time.	2. Unit-25 to 150 troops/ unit	III CORPS 3 ACR 49AD (ARNG) 2AD 1CAV 218 INF BDE (RC)	2. ARTS questionnaires. a. Range ring b. RELS c. AIT Trng d. Unit Trng e. NCO	28-30 Mar, Ft Polk, LA 5ID 31 Mar, Cherry Point, NC 3LAAM 3-7 Apr, Ft Bragg, NC 82ABN, 24ID, 3 LAAM	T_I, T_S, T_A, T_{S2}	PROG to PROF	
3. To determine a methodology for utilizing variable levels of proficiency as parametric values in current war simulations.	3. RC-25 troops/ unit	5ID 7ID 24ID		8 Apr, El Paso, TX 49AD (ARNG)	T_S, T_A, T_I, T_{S2}	PROF to War Mdl	
4. To develop a methodology to determine REDEYE crew effectiveness as opposed to individual task proficiency.		USAREUR VII CORPS 8ID Berlin Brigade 1AD 3ID		17-18 Apr, El Toro, CA 3 MASS 17-21 Apr, Ft Bliss, TX 3 ACR 24-28 Apr, Ft Bragg, NC 101 ABN (REDEYE & RELS Firing)	T_S, T_A	Ind Trng excursion	
5. To determine and improve the ability of current war models to give a measure of CE.		OTHER 25ID-Hawaii 2ID-Korea		24-28 Apr, Pinthen, GER 8ID 1-5 May, Schwabach, GER 1AD 1-5 May, Ft Riley, KS 1ID			
6. To investigate and comment on the impact on proficiency expected from varying the mix of institutional and unit							

(continued on next page)

WORKSHEET

TITLE: REDEYE (Continued from previous page) SCHOOL/AGENCY: POC/PHONE:

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
training and changes in training techniques and technology. 7. To describe the impact on proficiency of personnel turbulence, stability and capability and to develop the fluctuations in proficiency due to these variables. 8. To assess the benefits and costs associated with utilizing training devices in lieu of other training resource requirements and the impact of reduced resources. 9. To define possible intensified programs which might be offered by institutions to RC units and the resultant impact on proficiency. 10. To define the interoperability impact relative to other user nations.	(See Page 1)	(See Page 1)	(See Page 1)	8-12 May, Vilseck, GER 3ID 9 May, Ft Bliss, TX 3 ACR (RELS Firing) 11-12 May, Ft Ord, CA 7ID 14-19 May, Ft Lewis, WA 9ID (RELS Firing) 15-19 May, Camp Case, Korea 2ID 16-18 May, Zaragosa, AB, Spain Berlin Brigade 20-21 May, Ft Bragg, NC 218th SCNG 20-26 May, Fatima, Okinawa 2 MASS 29 May-2 Jun, Schofield Bks, HI 25ID 16-23 Jun, Ft Hood, TX 2 ARM (RELS Firing) 16-23 Jun, Ft Hood, TX 1 CAV (RELS Firing) 3-7 Jul Ft Carson, CO 4ID (RELS Firing)	T_I, T_{S1}, T_{A1}, T_{A2} Turbulence RES T_I, T_S, T_A T_I, T_S, T_A	PROG to PROF Personnel program excursion RES to PROG RC Excursion	(See Page 1)

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. REDEYE engagement tests using live tracking. 2. Attitude questionnaires.	Core A: Continue validation of threat oriented SM/ARTEPs. Core B: Determine time/costs to achieve proficiency. Core D: Determine decay rates and frequency of required retraining. Variable 3: Determine allocation of tasks between instit/unit. Variable 18: Determine effects of less capable trainees.	1. Determine time/cost to achieve and maintain individual proficiency. 2. Identify critical SM/ARTEP tasks. 3. Determine frequency of retrain. 4. Determine above for less capable trainees. 5. Determine effect of turbulence on crew proficiency. 6. Determine time and ability to train-up.
T_{S2}	1. REDEYE engagement tests using MTS, ROMAT, OATS, TMT, TVT (institution & unit).	Core A: Continue validation of threat oriented SM/ARTEPs. Core B: Determine time/costs to achieve proficiency. Variable 19: Evaluate rapid refresher training programs. (Insights only) Variable 20: Develop training concept to proficiency with reduced resources. Variable 25: Validate the effectiveness and efficiency of training devices.	
T_A	1. REDEYE engagement test using live tracking. 2. Unit training survey.	Core A: Continue validation of threat oriented SM/ARTEPs. Core B: Determine time/costs to achieve proficiency. Core D: Determine decay rates and frequency of required retraining. Variable 3: Determine allocation of tasks between instit/unit. Variable 16: Determine effects of stability and turbulence.	
T_{A2}	1. REDEYE engagement tests using MTS, ROMAT, OATS, TMT, TVT.	Core A: Continue validation of threat oriented SM/ARTEPs. Core B: Determine time/costs to achieve proficiency. Variable 19: Evaluate rapid refresher training programs. (Insights only) Variable 20: Develop training concept to proficiency with reduced resources. Variable 25: Validate the effectiveness and efficiency of training devices.	

10 Apr 78

WORKSHEET

TITLE: INSTITUTIONAL TRAINING FOR 11H SCHOOL/AGENCY: USAIS/USAIS POC/PHONE: MAJ Bradley 835-2773/5551

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4.DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
Describe training resources and associated cost of implementing 11H training program. A. Cost to train in institution. B. Cost to train in AC units. C. Cost to train in RC units. D. Cost to implement ITV training.	3 INF BNs 3 INF BNs 1 TLAT BN TOTAL = 7 BNs	4ID 9ID TLAT BN (ARNG)	Instit data to be forecasted. Course cost resource form. Tng resource data BN and lower. Course cost data. for DIV & BDE school. Course cost and Tng resource form (TLAT). Course cost resource form (TLAT).	Data gathered 17 Feb - 30 Apr	T_I, T_S T_{S2}, T_A	RES to PROG to PROF	I-15 Jun 78 F-20 Jul 78

11H, INSTITUTIONAL TRAINING

DELIVERABLE SUMMARY

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	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	Use various forms to describe training resources and associated cost of implementing 11H MOS training. 1. Cost to train in institution. 2. Cost to train in AC units. 3. Cost to train in RC units.	Core 8: Determine time/costs to achieve proficiency. Variable 3: Determine allocation of tasks between instit/unit. Variable 12: Determine exportable training packages to support training.	1. Determine time/frequency/costs/ proficiency for varying levels of turbulence for training of TOW SM skills in units. 2. Determine the most cost effective means of training to 95% proficiency in SM skills in units.
T_{S2}	1. Cost to train in AC Units. 2. Cost to train in RC units.	Variable 12: Determine exportable training packages to support training.	
T_A	1. Cost to train in AC units. 2. Cost to train in RC units.	Variable 12: Determine exportable training packages to support training.	
T_{AZ}			

10 April 1978

WORKSHEET

TITLE: COMPARISON OF UNIT TOW TRAINING VS INST TOW TRAINING SCHOOL/AGENCY: USAIS/USAID POC/PHONE: MAJ Bradley, AV 835-2773/5551

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
Comparison of instit vs unit training to proficiency (initial MOS qualification only).	3 INF BNs 3 INF BNs 1 TLAT BN Current P4 Course TOTAL = 7 BNs	4ID 9ID TLAT BN (ARNG)	Resource, cost data - collection form. Prof data - M70 Qual Table. ITV OTIII prof scores. TOW TEA test scores.	1 Feb-30 Apr: survey of units Similar data gathered for TOW gunners trained at Ft Benning. TRADOC DCSRM will compare costs.	T_I, T_S, T_A T_{S2}	RES to PROG to PROF	I-15 Jun 78 F-20 Jul 78

COMPARISON OF UNIT TOW TNG
VS INST TOW TNG

DELIVERABLE SUMMARY

5 April 1978

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	Use forms, ITV OTIII proficiency scores and TOW TEA test statistics to make comparison of institutional vs unit training (Initial MOS qualification only).	Core B: Determine time/costs to achieve proficiency. Variable 3: Determine allocation of tasks between institution/unit. Variable 5: Determine impact of transfer of selected AIT to FORSCOM.	1. Determine time/cost/frequency/ proficiency of SM skills for varying turbulence levels (unit data). 2. Determine the most cost effective manner of achieving 95% proficiency. 3. Determine training costs.
T_{S2}	Use proficiency data from M70 qualification table to make a comparison of institutional vs unit TOW training (Initial MOS qualification only).	Variable 12: Determine exportable training packages to support training.	
T_A			

10 April 1978

WORKSHEET

TITLE: UNIT PROFICIENCY MAINTENANCE & ITV TNG SCHOOL/AGENCY: USAIS/USAIS POC/PHONE: MAJ BRADLEY, AV 835-2773/5551

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
To associate unit TOW gunner proficiency to unit POI, training resources and the associated cost of implementing ITV training in both unit and institution.	3 INF BNs 3 INF BNs 1 TLAT BN TOTAL = 7 BNs	4ID 9ID TLAT BN (ARNG)	Training data forms.	1 Feb-30 Apr TOW units gather data on TOW training to include resources (SWT uses data to build POIs for unit training) (TRADOC/FORSCOM det annual cost of Tng). ITV COI tentatively validated during ITV OTIII - FORSCOM & USAREUR est cost to implement ITV COI. SWT assess impact of ITV on unit training.	T_S, T_{S2} T_A	RES to PROG to PROF	I-15 Jun F-20 Jul I-15 Jun F-20 Jul

TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S 1. Use training data forms to associate unit TOW gunner proficiency to unit POI, training resources and associated cost of implementing ITV training in both unit and institution. 2. Validate ITV COI during ITV OTIII.	Core B: Determine time/costs to achieve proficiency. Variable 3: Determine allocation of tasks between institution/unit. Variable 12: Determine exportable training packages to support training.	1. Determine time/costs to achieve 95% proficiency. 2. Determine time/frequency and costs to sustain 95% proficiency.
T_{S2} Use training data forms to associate unit TOW gunner proficiency to unit POI, training resources and associated cost of implementing ITV training in both unit and institution.		
T_A Use training data forms to associate unit TOW gunner proficiency to unit POI, training resources and associated costs of implementing ITV training in both unit and institution.	Core B: Determine time/costs to achieve proficiency. Variable 12: Determine exportable training packages to support training.	
T_{A2}		

10 Apr 78

WORKSHEET

TITLE: TOW/ITV TRAINING WEAKNESSES (STUDY) SCHOOL/AGENCY: USAIS/USAIS POC/PHONE: AAJ Bradley, 835-2773/5551

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
To identify major weaknesses/ deficiencies in unit/institution training for the P4 and 11H (ITV)	3 INF BNs	4ID	NONE	Review TOW tng studies, obs made during ITV OTIII and TOW TEA tests/studies.	T_I	RES to PROP	I-15 Jun
	3 INF BNs	9ID			T_S, T_{S2}		F-20 Jul
	1 TLAT BN	TLAT BN (ARNG)		Data gathered 1 Feb-30 Apr 78	T_A		
(To make Army TOW training the best allowable given resource constraints)	P4 Course	USAIS					
	TOTAL = 7 BNs						

TOW/ITV TRAINING WEAKNESSES | DELIVERABLE SUMMARY | 5 April 1978

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING DRILL
T_I & T_S	Review TOW training studies and observations made during ITV OTIII and TOW TEA.	Core 8: Determine time/costs to achieve proficiency. Variable 3: Determine allocation of tasks between instit/unit.	Validate decay and frequency retrain requirements based on varying turbulence levels.
T_{S2}			
T_A	Review TOW training studies and observations made during ITV OTIII and TOW TEA.	Core 8: Determine time/costs to achieve proficiency.	
T_{A2}			

10 Apr 78

WORKSHEET

TITLE: TOW TEA TEST — SCHOOL/AGENCY: USAIS/TCATA — POC/PHONE: CPT Hanna, 737-9409 MAJ Bradley , 835-2773/5551

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
1. Conduct part one of TOW WSTEA to: Evaluate alternative TOW training programs. Establish correlation between M70 scores and live fire. Validate ARI gunner selection models. Evaluate contribution of live-round firing to gunner proficiency. War game model - effect on proficiency of differing levels of model - sensitive TOW gunnery skills.	3 groups of 90 each (indiv soldiers, not previously TOW trained). TOTAL=270	2AD	ARI Field Form	Ft Hood, TX, 13 Mar - 20 Apr	T_I, T_S T_{S2} T_A, T_{A2}	PROG to PROF through War Mdl to CE	I-15 Jun F-20 Jul

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	Validate ARI Gunner Selection Models.	Variable 18: Determine effects of less capable trainees.	1. Determine time/frequency/cost/proficiency as a function of less capable trainees. 2. Determine the most cost effective manner of achieving 95% proficiency. 3. Determine time/frequency/cost/proficiency of this means.
T_{S2}	Compare three alternative training programs using missile firings following a sequential methodology. A. Establish correlation between M78 scores and live fire. B. Evaluate contribution of live-round firing to gunner proficiency.	Variable 3: Determine allocation of tasks between institution/unit. Variable 12: Determine exportable training packages to support training. Variable 19: Evaluate rapid refresher training programs. Variable 25: Validate the effectiveness and efficiency of training devices.	
T_A			
T_{A2}	War game model - use TEA data to determine effect on proficiency of differing levels of model-sensitive TOW gunnery skills.	Core A: Continue validation of threat oriented SM/ARTEPs. Variable 18: Determine effects of less capable (Input data to TRASANA war models)	

5 Apr 78

WORKSHEET

TITLE: WAR GAME MODEL - RELATE LEVELS OF TOW PROF TO CE

SCHOOL/AGENCY: USAIS/TRASANA

POC/PHONE: Ms. Hines 258-5392/3708
MAJ Bradley 835-2773/5551

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
To relate different TOW gunner proficiency levels to CE through a war model (TRASANA effort)	Past testing & TOW crew reaction time 13 crews	197 INF BDE	N/A	Data from TOW TEA (test 13 Mar-20 Apr 78) 20 Mar-31 May test analysis, model runs, analysis by TRASANA.	T_I, T_S T_A	PROF to CE	I-30 Jun F-20 Jul

WAR GAME MODEL - RELATE LEVELS OF TOW PROF TO CE — DELIVERABLE SUMMARY — 5 April 1978

TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_C — TRASANA use war model to relate different TOW gunner proficiency levels to CE.	Core A: Continue validation of threat oriented SM/ARTEPs. Variable 18: Determine effects of less capable trainees.	N/A
T_{C2} — TRASANA use war model to relate different TOW gunner proficiency levels to CE.	Core A: Continue validation of threat oriented SM/ARTEPs. (Compare present capability with threat oriented capability requirements). Variable 18: Determine effects of less capable trainees.	
T_A — TRASANA use war model to relate different TOW gunner proficiency levels to CE.	Core A: Continue validation of threat oriented SM/ARTEPs. Variable 18: Determine effects of less capable trainees.	
T_{A2} — TRASANA use war model to relate different TOW gunner proficiency levels to CE.	Core A: Continue validation of threat oriented SM/ARTEPs. Variable 18: Determine effects of less capable trainees.	

5 April 1978

WORKSHEET

TITLE: TOW GUNNER SELECTION CRITERIA (Comparative Study) SCHOOL/AGENCY: USAIS/ARI POC/PHONE: Dr. Cartner 737-9017 MAJ Bradley 835-2773/5551

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
To evaluate the impact of changes in gunner selection criteria on the personnel and training subsystems.	Included in TOW TEA 3 groups of 90 ea (indiv soldiers not previously TOW trained) TOTAL=270	2AD	"Piggybacked" demographics from A^2S^2, TOW System Eval, ARI TOW/Dragon Gunner Selection Criteria Study. Use ARI field forms.	"Piggybacked" demographics from earlier efforts. Model validated by live-fire in TOW TEA Mar-Apr	T_I, T_S T_A	PROG to PROP	I-15 Jun F-20 Jul

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	Study demographics from A^2S^2, TOW System Evaluation, ARI TOW/Dragon Gunner Selection Criteria Study.	Variable 18: Determine effects of less capable trainees. Variable 19: Evaluate rapid refresher training programs.	Determine time/frequency/costs/proficiency of SM tasks as a function of less capable trainees.
T_{S2}			
T_A	Study demographics from A^2S^2, TOW System Evaluation, ARI TOW/Dragon Gunner Selection Criteria Study.	Variable 18: Determine effects of less capable trainees.	
T_{A2}			

10 April 1978

WORKSHEET

TITLE: TLAT BN (ARNG) SCHOOL/AGENCY: USAIS/USAIS POC/PHONE: MAJ Bradley, 835-2773/5551

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
1. Survey to provide insights on Reserve Component training resource requirements and other problems related with TOW training.	1- TLAT BN	TLAT BN (ARNG)	Course resource data form. Training data form.	Data gathering 1 Feb - 30 Apr	T_I, T_S, T_A	RES to PROG to PROF	I-15 Jun F-20 Jul
2. Informal evaluation of TEC lesson support to TOW training.	1- TLAT BN	TLAT BN	TEC questionnaire.	Data gathering 1 Feb - 30 Apr	T_{S2}, T_{A2}	PROG to PROF	I-15 Jun F-20 Jul

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING LEVEL
T_I & T_S	Survey to provide insights on Reserve Component unique training resource requirements and other problems related with TOW training.	Core 8: Determine time/costs to achieve proficiency. Variable 12: Determine exportable training packages to support training. Variable 19: Evaluate rapid refresher training programs.	Determine tasks, time, frequency retraining, costs and proficiency for each TEC lesson. Compare input - output with T_S - Analyze - make recommendations as to most mission/cost effective program.
T_{S2}	Informal evaluation of TEC lessons.	Variable 25: Validate the effectiveness and efficiency of training devices.	
T_A	Same as T_I + T_S	Same at T_I + T_S	
T_{A2}	Informal evaluation of TEC lessons.	Variable 25: Validate the effectiveness and efficiency of training devices.	

10 Apr 78

WORKSHEET

TITLE: DIVISION RESTRUCTURING STUDY (DRS) SCHOOL/AGENCY: USAIS/TCATA POC/PHONE: CPT Hanna, 737-9409
MAJ Bradley, 835-2773/5551

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
*Document resources and resulting proficiency associated w/intensive short-term TOW training.	3 DRS BNs	1 CAV	TCATA forms	Ft Hood, TX, Ph 1 ended 14 Feb	T_S, T_A	RES to PROG to PROF	I-15 Jun F-20 Jul
*TCATA reviewing — may not provide training data of use to ARTS.							
Obtain data on crew/unit proficiency for use in THASANA war game model.	3 DRS BNs	1 CAV	NONE	Ft Hood	T_A	PROG to PROF	I-TBD F-TBD

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	Document resources and resulting proficiency associated with intensive short-term TOW training.	Core A: Continue validation of threat oriented SM/ARTEPS. Core B: Determine time/costs to achieve proficiency. Variable 19: Evaluate rapid refresher training programs.	1. Determine time/frequency/costs/ proficiency in SM tasks using the most cost effective programs as a function of varying levels of turbulence. 2. Determine time/frequency/costs/ proficiency in ARTEP tasks using the most cost effective programs as a function of varying levels of turbulence.
T_{S2}			
T_A	Document resources and resulting proficiency associated with intensive short-term TOW training.	Core B: Determine time/costs to achieve proficiency. Variable 19: Evaluate rapid refresher training programs.	
T_{A2}			

5 Apr 78

WORKSHEET

TITLE: ITV OTIII SCHOOL/AGENCY: USAIS/OTEA POC/PHONE: MAJ Hotard/355-8248

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
Extract data from ITV OTIII A. Assessment of retention of TOW Gunner skills. B. Development of ITV COI. C. Forecast of training resource requirements. D. Impact of ITV on instit and unit training.	34 TOW troops As a part of 1 mech INF CO and 1 ARM CAV PLT TOTAL= 1 CO & 1 PLT	9ID	On site eval by OTEA.	15 Jan - 30 Apr	T_I, T_S, T_A	RES to PROF	I-15 Jun F-20 Jul

	TEST ACTIVITY	INTERFACE W/TEA TMS CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	Individual training programs to develop individual proficiency to support crew/ platoon training.	Core A: Continue validation of threat oriented SM/ARTEPs. Core C: Develop diagnostic test to measure proficiency and decay levels. Core D: Determine decay rates and frequency of required retraining. Variable 12: Determine exportable training packages to support training.	1. Time/frequency/costs/ proficiency of SM tasks as function of varying levels of turbulence & trainer capability. 2. Time/frequency/costs/proficiency in ARTEP tasks as function of varying levels of turbulence & trainer capability.
T_{S2}			
T_A	1. Train Inf crews and Armd Cav sqds to operate ITV system. 2. Live-fire exercises against multiple targets. 3. Conduct series of Armd Cav Recon Plt and Mech Inf Co exercises vs a threat force.	Core A: Continue validation of threat oriented SM/ARTEPs. Core C: Develop diagnostic tests to measure proficiency and decay levels. Variable 12: Determine exportable training packages to support training.	
T_{A2}			

5 Apr 78

WORKSHEET

TITLE: ITV CTEA STUDY SCHOOL/AGENCY: USAIS POC/PHONE: MAJ Bradley 835-2773/5551

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
Determine most cost effective method and location (instit/unit) to teach ITV gunner/crew tasks.	Based on OTIII data.	Study	On-site evaluation from OTIII.	15 Jan - 30 Apr	T_I, T_S, T_A T_{S2}	RES to PROG to PROF	I-15 Jun F-28 Jul

ITV CTEA

DELIVERABLE SUMMARY

5 April 1978

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	Gather data on most cost effective method and location (institution/unit) to teach ITV gunner/crew tasks.	Core B: Determine time/costs to achieve proficiency. Variable 3: Determine allocation of tasks between instit/unit.	1. Determine the most cost effective method of achieving 95% proficiency. 2. Cost the selected method for SM tasks.
T_{S2}	Correlate proficiency on M78 trainer with live fire gunner proficiency (TOW TEA).	Variable 28: Develop training concept to proficiency with reduced resources. Variable 25: Validate the effectiveness and efficiency of training devices.	
T_A	Gather data on most cost effective method and location (institution/unit) to teach ITV gunner/crew tasks.	Core B: Determine time/costs to achieve proficiency. Variable 3: Determine allocation of tasks between instit/unit. Variable 28: Develop training concept to proficiency with reduced resources.	
T_{A2}			

10 Apr 78

WORKSHEET

TITLE: TOW COSTING METHODOLOGY SCHOOL/AGENCY: USAIS/USAIS POC/PHONE: MAJ Bradley, 835-2773/5551

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
Make costs/resource comparisons:			Course Cost Data Form, (Survey of formal TOW gunner courses conducted tng within divisions) tng Data Form (Form surveying unit tng designed and conducted by units (to sqd level) designed to achieve a specific objective)	Data gathering 1 Feb - 30 Apr		RES to PROG to PROP	I-15 Jun F-20 Jul
A. Gunner training in instit/unit.	3 INF BNs 3 INF BNs 1 TLAT BN ST 7 BNs	4ID 9ID TLAT BN (ARNG)			T_I, T_S		
B. DRS vs TLAT maint training.	3 BNs 1 TLAT BN ST 4 BNs	1 CAV TLAT BN (ARNG)			T_S, T_A		
C. AC Unit vs TLAT Tng.	3 INF BNs 3 INF BNs 1 TLAT BN ST 7 BNs	4ID 9ID TLAT BN (ARNG)	Forms surveying maint tng which is not formally structured but consists of a series of tng elements		T_S, T_A		
	TOTAL=18 BNS						

	TEST ACTIVITY	INTERFACE W/TRA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. Cost gunner training in institution/unit. 2. Cost DRS vs TLAT maintenance training. 3. Cost of current AC vs TLAT organizational training.	Core B: Determine time/costs to achieve proficiency. Variable 3: Determine allocation of tasks between inst./unit.	1. Determine most cost effective manner of achieving 95% proficiency in SM skills. 2. Cost the selected method.
T_{S2}			
T_A	Cost of current AC vs TLAT organizational training.	Core B: Determine time/costs to achieve proficiency.	
T_{A2}			

10 Apr 78

WORKSHEET

TITLE: FO/UNIT TRAINING TEA 78 SCHOOL/AGENCY: USAFAS FT SILL POC/PHONE: LTC John O. Neal, AV 639-3518

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4.DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
To determine the relationship between the level of proficiency of FOs and unit training programs.	144 troops (24 Off/ Div) (24 13F/ Div)	4ID 2AD 1 CAV	1. Unit tng mgt survey. 2. FO SQT written exam. 3. FO questionnaire.	Dates: May - Jun	T_S, T_A	PROG to PROF	I-1 Jul F-1 Oct

	TEST ACTIVITY	INTERFACE W/TEA TMS CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_1 & T_S	1. SQT type written test on call for & adjustment of fire. 2. Self-location and target location test w/map correlation.	Core A: Continue validation of threat oriented SM/ARTEPs. Core C: Develop diagnostic tests to measure proficiency. Variable 17: Determine effects of reduced off/NCO fill. (Possible insights)	1. Validate critical SM/ARTEP tasks. 2. Determine individual and unit proficiency based on various training programs. 3. Determine most efficient (time & dollars) costing of FO training. 4. Determine impact of turbulence on proficiency.
T_{S2}			
T_A	1. Conduct review/discussion of unit FO training programs. Use survey format to insure commonality. 2. Administer questionnaire to obtain opinions on the adequacy of training programs.	Core A: Continue validation of threat oriented SM/ARTEPs. Core B: Determine time/costs to achieve proficiency as reflected by unit training schedules. Variable 16: Determine effects of stability and turbulence. Variable 17: Determine effects of reduced off/NCO fill.	
T_{A2}			

10 Apr 78

WORKSHEET

TITLE: OBSERVED FIRE TRAINER (TEA EXPANSION SCHOOL/AGENCY: USAFAS POC/PHONE: LTC John O. Neal AV 639-3518

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
1. To determine the impact of the degree/intensity of the use of tng devices in the institution has on individual prof.	300 troops total 1 ODC CLASSES (200 Off) 5 13F CLASSES 20-50 EM/CL	NONE	1. Institution background questionnaire. 2. STEP Test. 3. OBS fire exam. 4. Institution questionnaire. 5. Final OBS fire exam. 6. Instructor questionnaire.	Resident courses ODC: 13 Jun 13F: 16 Jun COMPL: 30 Sep	T_I, T_{I2}	PROG to PROF	I-1 Jul F-1 Dec
2. To determine the impact of the degree/intensity of use of tng devices in the unit has on individual training.	93 troops TOTAL 30 (5-7 Per Div) 63 troops (Basic CTEA)	4ID 9ID 2AD 1 CAV III Cps Ft Knox	1. TAC unit background questionnaire. 2. STEP Test. 3. OBS fire exam. 4. Unit questionnaire. 5. Final OBS fire exam. 6. Instructor questionnaire.	Dates: TBD	T_{S1}, T_{S2}	PROG to PROF	
3. To determine the impact of changes in the techniques/ technology on indiv tng.	Total - 393 troops			Analysis of data	T_I, T_{S1}	PROG to PROF	

	TEST ACTIVITY	INTERFACE W/TEA MS CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. Variation of mix of OFT vs Live Fire Instruction. 2. Test, Train-up and Retest EM Observers Recalled from Divs.	Core B: Determine time/costs to achieve proficiency. Core C: Develop diagnostic tests to measure proficiency. Variable 19: Evaluate rapid refresher training programs. (The results may provide insights on PC use of these devices for rapid train-up) Variable 25: Validate the effectiveness and efficiency of training devices.	1. Allows most efficient costing (time & dollars) of FO training. 2. Measure proficiency based on various training methods. 3. Determine time and frequency to train-up to proficiency.
T_{S2}	1. Test of OFT.	Core B: Determine time/costs to achieve proficiency. Variable 25: Validate the effectiveness and efficiency of training devices.	
T_A			
T_{A2}	1. Test of OFT.	Core B: Determine time/costs to achieve proficiency. Variable 25: Validate the effectiveness and efficiency of training devices.	

10 Apr 78

WORKSHEET

TITLE: SUITABILITY OF 13F EXPORTED TRAINING SCHOOL/AGENCY: USAFAS FT SILL POC/PHONE: LTC John O. Neal, AV 639-5903/3518

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
1. To determine the impact of replacing portions of current institutional courses (13F) with training programs designed for unit execution.	40 troops 2 13F Classes	Prev support in OFT test.	Prev surveys in OFT test.	Analysis	T_I, T_{S1}, T_{S2} T_{A1}, T_{A2}	PROG to PROF	I-15 Dec F-15 Feb 79

SUITABILITY OF 13F EXPORTED TRAINING — DELIVERABLE SUMMARY — 5 April 1978

	TEST ACTIVITY	INTERFACE W/TFA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. Two 13F resident courses receive modified COI (base COI less training appropriate for unit training augment by exportable packages, end of course proficiency measure & compared to base COI proficiency.	Core B: Determine time/costs to achieve proficiency. Core C: Develop diagnostic tests to measure proficiency. Variable 12: Determine exportable training packages to support training. Variable 5: Determine impact of transfer of selected AIT to FORSCOM.	1. Validate critical SM tasks from previous tests. 2. Determine most efficient (time & dollars) methods mixes of training. 3. Determine & measure proficiency as result of train-up packages.
T_{S2}		Variable 3: Determine allocation of tasks between instit/unit.	
T_A			
T_{A2}			

10 Apr 78

WORKSHEET

TITLE: CONFIRM 63C/H SQT AS A MEASURE OF PROFICIENCY SCHOOL/AGENCY: USAOCCS POC/PHONE: Mr. Oliver 283-3170/4460

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
Confirm SQT as a measure of proficiency.	Approx 475 E2-E4 Approx 128 E5 and above	1ID 4ID 5ID 49AD (ARNG) 8ID	1. Background data 2. OJT data 3. Performance tests 4. Supervisors rating 5. SQT results	8ID, 24-27 Apr 1ID, 8-11 May 4ID, 6-10 Mar 5ID, 21-25 Feb 49AD, 12-15 Jun (Ft Hood, TX)	T_I, T_S	PROG to PROF	I-N/A F-Aug 78* *Administration of SQT tests originally planned for Mar-May has been rescheduled by DA for May-Jul. Computer processing will add a minimum of 6-8 weeks.

63C/H MOS CONFIRM SQT AS A MEASURE OF PROFICIENCY

DELIVERABLE SUMMARY

5 April 1978

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. Obtain SQT results for MOS 63C/H. 2. Administrative performance test. 3. Correlate individual performance w/SQT.	Core A: Continue validation of threat oriented SM/ARTEPs. Variable 12: Determine effect of expanded OSUT for sel. high-pri wpns. Variable 18: Determine effect of less capable trainees.	1. Test selected tasks in critical functional areas. 2. Determine most efficient (time and dollars) methods of achieving individual proficiency. 3. Determine frequency of retrain under various training methods. 4. Develop proficiency development profiles which may be expanded to other task.
T_{S2}			
T_A			
T_{A2}			

10 Apr 78

WORKSHEET

TITLE: IDENTIFY PROFICIENCY DEVELOPMENT PROFILES SCHOOL/AGENCY: USAOCCS POC/PHONE: Mr. Oliver 283-3170/4460

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
Identify proficiency development profiles	Approx 475 E2-E4 Approx 120 E5 and above	1ID 4ID 5ID 49AD (ARNG) 8ID	1. Performance test results 2. Questionnaire to determine characteristics of OJT programs 3. Individual aptitude scores 4. Prior studies	8ID, 24-27 Apr 1ID, 8-11 May 4ID, 6-10 Mar 5ID, 21-25 Feb 49AD, 12-15 Jun (Ft Hood, TX)	T_{I1}, T_{I2}, T_{I3} T_{S1}, T_{S2},	PROG to PROF	I-Apr-May F-15 Jun *Data summaries will be provided as completed

G3C/H IDENTIFY PROFICIENCY,
DEVELOPMENT PROFILES

DELIVERABLE SUMMARY

5 April 1978

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. Administer performance test to both self pace and lockstep graduates. 2. Administer cross sectional test. 3. Analyse data to yield: a. Self pace vs lockstep	Core B: Determine time/costs to achieve proficiency. Core C: Develop diagnostic tests to measure proficiency and decay levels. Core D: Determine decay rates and frequency of required retraining. Variable 3: Determine allocation of task between instit/unit. Variable 12: Determine exportable training packages to support training. Variable 18: Determine effects of reduced off/NCO fill.	1. Determine most efficient (time & dollars) methods of achieving individual proficiency. 2. Determine frequency of retrain under various training methods. 3. Measure proficiency of less capable trainees. 4. Determine effect on proficiency of less trainer fill. 5. Develop proficiency development profiles which may be expanded to other tasks.
T_{S2}	b. Aptitude vs Retention c. Decay over time d. Decay related to experience e. Extent and relevance of OJT f. Extent and relevance of experience		
T_A	g. Mean proficiency vs mean training time 4. Retest self-paced graduates at four-six month intervals.		
T_{A2}			

10 Apr 78

WORKSHEET

TITLE: IDENTIFY COST EFFECTIVENESS OF INSTITUTIONAL AND UNIT TNC PROGRAMS SCHOOL/AGENCY: USAOCCS POC/PHONE: Mr. Oliver 283-3170/4460

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
Identify cost effectiveness of institutional and unit training programs.	Approx 475 E2-E4 Approx 120 E5 and above	1ID 4ID 5ID 49AD (ARNG) 8ID	1. Proficiency development profiles 2. Aptitude scores 3. Cost data from TRADOC, FORS command USAREUR 4. Unit training data 5. Productivity profiles	N/A* *Test dates are as shown for MOS 63C/H tests. Data from these tests will be studied along with other data listed under "questionnaires/surveys" column.	$T_I - T_S$ Quantity T_{S1}, T_{S2}	PROG to PROF	I-Apr-May* F-15 Jun *Data Summaries will be provided as completed.

63C/H, IDENTIFY COST EFFECTIVENESS OF INSTIT/UNIT TNG PROGRAM

DELIVERABLE SUMMARY

5 April 1978

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	Identify resources and effectiveness of combinations of institutional and unit training.	Core B: Determine time/costs to achieve proficiency. Variable 5: Determine impact of transfer of selected AIT to FORSCOM. Variable 12: Determine exportable training packages to support training. Variable 16: Determine effects of stability and turbulence.	1. Determine most efficient (time & dollars) methods of achieving individual proficiency. 2. Determine and measure proficiency as a result of using train-up packages. 3. Determine effect of turbulence on proficiency.
T_{S2}			
T_A			
T_{A2}			

10 Apr 78

WORKSHEET

TITLE: IDENTIFY OPTIMUM DISTRIBUTION OF INDIV TNG BETWEEN INST AND UNITS SCHOOL/AGENCY: USAOCCS POC/PHONE: Mr. Oliver 283-3170/4460

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
Identify optimum distribution of individual training between institution and units.	Approx 475 E2-E4 Approx 120 E5 and above	1ID 4ID 5ID 49AD (ARNG) 8ID	1. Proficiency development profiles. 2. Questionnaire results. 3. Resource effectiveness data. 4. Equipment operational availability.	N/A* *Test dates are as shown for MOS 63C/H tests. Data from these will be studied along with other data listed under "questionnaires/surveys" column.	T_I, T_S	PROF to CE (theoretical link)	I-Apr-May* F-15 Jun *Data summaries will be provided as completed.

IDENTIFY OPTIMUM DISTRIBUTION OF INDIVIDUAL TRAINING BETWEEN INSTITUTION AND UNIT

DELIVERABLE SUMMARY

5 April 1978

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	Use of proficiency development profiles, questionnaire results, resource effectiveness data, equipment operational availability for various profiles and prior studies to identify optimum distribution of individual training between institution and unit.	Variable 3: Determine allocation of tasks between instit/unit. Variable 5: Determine impact of transfer of selected AIT to FORSCOM. Variable 18: Determine effects of less capable trainees. Variable 20: Develop training concept to proficiency with reduced resources.	
T_{S2}			
T_A			
T_{A2}			

10 Apr 78

WORKSHEET

TITLE: IDENTIFY ALTERNATIVES FOR TNG SELECTED PERSONNEL FOR MOBILIZATION SCHOOL/AGENCY: USAOCCS POC/PHONE: Mr. Oliver 283-3170/4460

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
Identify alternatives for training selected personnel for mobilization.	N/A	N/A	1. Army 2. Civilian courses of instruction. 3. National institute of automotive service excellence tests. 4. Data from Dept of Labor, Dept of Health, Education and Welfare.	N/A	T_S, T_S,	PROG to PROF	I-N/A F-15 Jun

IDENTIFY ALTERNATIVES FOR TRAINING SELECTED PERSONNEL FOR MOBILIZATION

DELIVERABLE SUMMARY

5 April 1978

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAIN[illegible] MODEL
T_I & T_S	Correlate statistics from Dept. of Labor and Dept. of Health, Education and Welfare with information from tests administrated by the National Institute of Automotive Service Excellence.	Variable 18: Determine effects of less capable trainees. Variable 19: Evaluate rapid refresher training programs.	1. Determine proficiency of less capable trainees. 2. Measure proficiency as a result of using train-up packages.
T_{S2}			
T_A			
T_{A2}			

10 Apr 78

WORKSHEET

TITLE: COMPARE TASK PERFORMANCE OF SELF-PACED AND GP PACED 05C/F GRADUATES SCHOOL/AGENCY: USASIGS POC/PHONE: Mr. Squyres 780-7221

1. OBJECTIVE(S)	2. SAMPLE SIZE	3. TEST UNIT(S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/FINAL REPORT DATE
To evaluate effectiveness of the 05C self-paced program.	Part 1 All 05B, 05C, 05F grads 27 Jan-17 Feb 77, Total-224	USASIGS	Based on data gathered pre ARTS.	No field tests	T_{I}, T_{I_2}	RES to PROF	I-1 Apr F-1 Apr
	Part 2 Selected 05C/F self-paced grads 15 Apr-30 Jun and all 05C/F OSUT grads 1 Jul-15 Sep EST - 150 TOTAL-374	USASIGS	(1) End of crs test. (2) Questionnaire.				I-1 Jul F-15 Sep

COMPARE SELF-PACED AND GROUP-PACED | DELIVERABLE SUMMARY | 5 April 1978

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. Administer end of course test prior to field training exercise. 2. Gather academic data (attrition, average number of weeks in training, absenteeism student profiles, attitude.)	Core B: Determine time/costs to achieve proficiency.	Determine most efficient (time & dollars) means of achieving individual proficiency.
T_{S2}			
T_A			
T_{A2}			

10 April 1978

WORKSHEET

TITLE: TEST PROFICIENCY OF OSC/F TEAMS IN FIELD UNITS SCHOOL/AGENCY: POC/PHONE: Mr. Squires 780-7221

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
Compare performance of OSC/F teams in field units who have completed self-paced and lock-step courses.	150 24ID 80 49AD 230 (ARNG)	24ID 49AD (ARNG)	Validated job proficiency test USASIGS SWT questionnaire.	24ID 24-30 Apr 49AD 5-9 Jun 78 12-15 Jun 78	T_I, T_S, T_{S2}, T_A	RES to PROF	I-Mid Jun F-1 Jul

OSC/F IN FIELD UNITS

DELIVERABLE SUMMARY

5 April 1978

TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S 1. Administer written test component. 2. Administer hands-on test component (portion evaluating individual).	Core C: Develop diagnostic tests to measure proficiency and decay levels. Variable 12: Determine exportable training packages to support training. Variable 18: Determine effects of less capable trainees.	1. Compare performance of self-paced and lock step groups. 2. Frequency of retrain. 3. Validate critical tasks.
T_{S2} 1. Administer written test component to self-paced graduates. 2. Administer hands-on test component to self-paced graduates (portion evaluating individual).	Core C: Develop diagnostic tests to measure proficiency and decay levels. Variable 12: Determine exportable training packages to support training. Variable 18: Determine effects of less capable trainees.	
T_A Administer hands-on test component (portion evaluating RATT team).	Core C: Develop diagnostic tests to measure proficiency and decay levels. Variable 12: Determine exportable training packages to support training. Variable 18: Determine effects of less capable trainees.	
T_{A2} Administer hands-on component to self-paced graduates (portion evaluating RATT team).	Core C: Develop diagnostic tests to measure proficiency and decay levels. Variable 12: Determine exportable training packages to support training. Variable 18: Determine effects of less capable trainees.	

WORKSHEET

TITLE: COMPARE ALTERNATIVE UNIT TRAINING PROGRAMS SCHOOL/AGENCY: USASIGS POC/PHONE: Mr. Squyres AV 780-7221

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
Compare alternative unit training programs to correct performance deficiencies.	TBD - Dependent on deficiencies found	24ID 49AD (ARNG)	Pretest - validated job proficiency tests & SWT questionnaire Post Test validated job proficiency tests & SWT questionnaire.	Administered after completion of testing performance of OSC/P in field 24ID May-Jun 49AD Mid Jun	T_S, T_{S2}, T_A	RES to PROG to PROP	I-24ID 1 Jul 49AD TBD F-TBD

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. Administer Pre-test. 2. Execute training programs. 3. Administer Post-test.	Core A: Continue validation of threat oriented SM/ARTEPs. Core B: Determine time/costs to achieve proficiency. Variable 12: Determine exportable training packages to support training. Variable 16: Determine effects of stability and turbulence. Variable 19: Evaluate rapid refresher training programs.	1. Validate critical SM/ARTEP tasks. 2. Determine time/cost/frequency for substandard performers to achieve proficiency with selected unit training programs. 3. Measure effect of turbulence on individual and collective proficiency. 4. Determine alternative training packages which will provide time/cost/frequency data for substandard performers to reach proficiency.
T_{S2}	1. Administer Pre-test. 2. Execute training programs. 3. Administer Post-test.	Core A: Continue validation of threat oriented SM/ARTEPs. Core B: Determine time/costs to achieve proficiency. Variable 12: Determine exportable training packages to support training. Variable 16: Determine effects of stability and turbulence. Variable 19: Evaluate rapid refresher training programs.	
T_A	1. Administer Pre-test. 2. Execute training programs. 3. Administer Post-test.	Core A: Continue validation of threat oriented SM/ARTEPs. Core B: Determine time/costs to achieve proficiency. Variable 12: Determine exportable training packages to support training. Variable 16: Determine effects of stability and turbulence. Variable 19: Evaluate rapid refresher training programs.	
T_{A2}			

10 April 1978

WORKSHEET

TITLE: VALIDATION OF RIFLE SQUAD REALTRAIN FOR ENGAGEMENT SIMULATION (REALTRAIN) SCHOOL/AGENCY: ARI POC/PHONE: ARI Dr. Harris 274-8827

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
1. To determine relative effectiveness of REALTRAIN & conventional training for rifle squad tactical training. 2. To provide data on the utility of performance measures, measurement procedures and performance data collection strategies for ARTEP training diagnosis and assesment of unit tactical performance. 3. To provide data for inclusion in cost and training Effectiveness Analysis (CTEA) for Unit Tactical Performance.	PHASE I TNG for data collectors, controllers & OPFOR PHASE II Six Rifle SQDS (3 REALTRAIN/ 3 CONVENTIONAL) formed into two PLT's & tested to establish Baseline PHASE III Six SQDs train (3 REALTRAIN/ 3 CONVENTIONAL) PHASE IV Six SQDs Post Test PHASE V 3 SQDs oppose 3 SQDs PHASE VI Repeat PHASES II & IV	N/A	N/A	11 Apr 77 20 May 77	T_{S2}, T_{A2}	PROG to PROF	I-N/A F-ARI 11-92 dtd Oct 77

10 Apr 78

WORKSHEET

TITLE: VALIDATION OF ANTI-ARMOR REALTRAIN FOR ENGAGEMENT SIMULATION ARTEP SCHOOL/AGENCY: ARI POC/PHONE: ARI DR. Harris, 274-8827

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
1. To determine the relative effectiveness of REALTRAIN and conventional training for Combined Arms Tactical training. 2. To provide data on the utility of performance measures, measurement procedures and performance data collection strategies for ARTEP training diagnosis and assessment of unit tactical performance. 3. To provide data for inclusion in Cost & Training Effectiveness Analysis (CTEA) for tactical engagement simulation systems.	1 TK BN 1 MEC BN 5 FIST	4ID	1. Training Data Questionnaire for individual/unit.	9 Jan-Mar	T_A, T_{A2}	PROG to PROF	I-EST 24 Mar F-EST 15 Jun

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S			1. Determine most efficient (time & dollars) methods for achieving collective proficiency. 2. Determine time/frequency/cost/ proficiency as a function of less capable trainees.
T_{S2}			
T_A	1. Train-up of participating units. 2. Pretest to establish baseline proficiency. 3. Two teams receive conventional tactical training. 4. Post test to quantify effect of training. 5. Free play exercise opposing REALTRAIN force 6. Repeat Pre & Post tests.	Core A: Continue validation of threat oriented SM/ARTEPs. Core B: Determine time/costs to achieve proficiency. Core C: Develop diagnostic tests to measure proficiency and decay levels. Core D: Determine decay rates and frequency of required retraining.	
T_{A2}	1. Two teams receive tactical training w/ REALTRAIN. 2. Post test to quantify effect of training. 3. Fill play exercise opposing conventional force. 4. Repeat Pre & Post tests.	Core B: Determine time/costs to achieve proficiency. Core C: Develop diagnostic tests to measure proficiency and decay levels. Core D: Determine decay rates and frequency of required retraining. Variable 18: Determine effects of less capable trainees. Variable 20: Develop training concepts to proficiency with reduced resources. Variable 25: Validate the effectiveness and efficiency of training devices.	

10 Apr 78

WORKSHEET

TITLE: COMPUTER ASSISTED MAP MANEUVER (CAMMS) SCHOOL/AGENCY: CAC/CATRADA/ARI POC/PHONE: CATRADA DR. H. Barber AV 552-4443 LTC Shambarger AV 552-3180/3395

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
1. Measure effectiveness of CAMMS as a training method. 2. Develop a command group performance assessment procedure & feedback mechanism. 3. Relate unit training proficiency to the type and amount of performance improvement by command group through use of CAMMS. (Long term ARTS objective which is tied to evaluation of unit at NTC). 4. Determine effects of stability/turbulence on collective proficiencies. (Long term objective tied to evaluation of unit at NTC).	5 BN sized command groups initially. 10 BN sized command groups annually (50% AC/ 50% RC)	3 BNs, 4ID by 15 May 2 BN 1ID by 15 May	1. CMD Gp/staff module ARTEP 71-2. 2. Pre-test & Post Test design. 3. Performance measurement plan.	1. Warm-up 2. Pre-test 3. Feedback, train, feedback 4. Post test 10 Apr-28 Apr 3BN 4ID (2 MECH, 1ARM) 1ID TBD	CMD GP/ contribution to unit readiness	PROG to PROF	I-NONE Testing complete for short term effort by 15 May F-1 Jul 78

COMPUTER ASSISTED MAP MANEUVER (CAMMS) DELIVERABLE SUMMARY 5 April 1978

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. Conduct warm-up exercise. 2. Conduct pre-test. 3. Conduct CAMMS training w/pre/post-test.	Core A: Continue validation of threat oriented SM/ARTEPs. Core B: Determine time/costs to achieve proficiency. Core C: Develop diagnostic tests to measure proficiency and decay levels. Variable 16: Determine effects of stability and turbulence. Variable 19: Evaluate rapid refresher training programs.	1. Gather insights as to effectiveness and efficiency (time & dollars) of training battalion command groups. 2. Assess effectiveness of CAMMS as an evaluation tool.
T_{S2}		Variable 20: Develop training concepts to proficiency with reduced resources. Variable 25: Validate the effectiveness and efficiency of training devices. (Continued from above)	
T_A			
T_{A2}	LONG RANGE FOLLOW-UP 1. Conduct Bn engagement simulations at NTC/CDEC against OPFOR. 2. Compare results of performance measures of CMD GP proficiency of CAMMS trained vs conventional trained CMD GPs.	Core D: Determine decay rates and frequency of required retraining. Variable 17: Determine effects of reduced off/NCO fill. Variable 16: Determine effects of stability and turbulence.	

10 Apr 78

WORKSHEET

TITLE: TRAINING INSTRUMENTATION EVALUATION (TIE TEST) SCHOOL/AGENCY: TRADOC-DCST/CDEC POC/PHONE: CATRADA MAJ Ballagh 552-4684 USACDEC AV 929-3475

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
1. To gain insights into changes in tactical proficiency resulting from instrumented tactical engagement training. 2. To verify/revise tactical MOE. 3. To provide information as to instrumentation required to provide feedback/ diagnostics needed to improve performance. 4. To provide data to assist development of a MILES control system & the NTC.	PHASE I: One Armor Hvy Co TM against OPFOR PHASE II: One Armor Hvy Co TM against OPFOR	CDEC 1ID	NONE	PHASE I 31 Jul, 26 Aug PHASE II 1 Sep, 15 Sep	T_S, T_A	PROG to PROF	I-N/A F-EST 15 Dec

TRAINING INSTRUMENTATION EVALUATION (TIE TEST) DELIVERABLE SUMMARY 5 April 1978

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. Conduct Phase I SM train-up.	Variable 17: Determine effects of reduced off/NCO fill.	1. Determine time/frequency and cost of training of less capable trainees. 2. Provide time and cost of achieving crew proficiency. 3. Determine effect of turbulence on crew proficiency. 4. Determine frequency of retrain and method of maintaining proficiency.
T_{S2}	1. Conduct Phase I ARTEP level 1 train-up.	Core B: Determine time/costs to achieve proficiency. Variable 16: Determine effects of stability and turbulence.	
T_A	2. Conduct Phase I engagement simulation. 3. Conduct Phase II engagement simulation.	Core A: Continue validation of threat oriented SM/ARTEPs. Core B: Determine time/costs to achieve proficiency. Extract Core C, Collective learning decay by comparing performance w/train-up phase. Variable 25: Validate the effectiveness and efficiency of training devices.	
T_{A2}			

10 Apr 78

WORKSHEET

TITLE: ARI CANNON CREW TURBULENCE — SCHOOL/AGENCY: ARI/USAFAS FT SILL — POC/PHONE: DR. Steve Goldberg, 284-8694 CPT Patrick, USAFAS, 639-4393

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
1. To measure the proficiency of cannon crews as a function of: time together, individual proficiency by position and training history of crew members.	1. Validation, 8 M102 crews 2. 2 FA battalions (36 sections)	1. III Corps Arty. 2. 9ID	Crew turbulence questionnaire.	1. Validation trial 17, Mar, Ft Sill, OK. 2. Ft Lewis, Aug 78	T_A, T_S	PROG to PROF Effect of turbulence	I-TBD F-TBD

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. Individual Proficiency Test of Critical Pers. 2. Administer FA crew stability questionnaire to ea FA crewman.	Core C: Diagnostic tests to measure proficiency and decay levels. Variable 16: Determine effects of stability and turbulence.	1. Determine individual and crew proficiency. 2. Impact of turbulence on crew proficiency.
T_{S2}			
T_A	FA Cannon Section Proficiency Test.	Core C: Diagnostic tests to measure proficiency and decay levels. Variable 16: Determine effects of stability and turbulence.	
T_{A2}			

10 Apr 78

WORKSHEET

TITLE: TAC FIRE POST OTIII (TEA 85) SCHOOL/AGENCY: USAFAS FT SILL/ ARI FT HOOD POC/PHONE: DR. Sanders, ARI, Ft Hood, AV 737-1316/ LTC John Neal 639-3518/5903 9118

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
1. Continue to develop diagnostic tests to measure individual/collective earning decay levels.	22 troops(1 TACFIRE net w/ crew)	1 CAV	Attitude surveys	Train-up class graduates 17 Apr	T_I, T_S	PROG/PROP	I-Jul F-TBD
2. Determine decay rates and freq of retraining required to sustain optimal prof for individual/collective critical tasks.						PROG/PROP	

C-10

TACFIRE POST OTIII (TEA 85) DELIVERABLE SUMMARY 5 April 1978

	TEST ACTIVITY	INTERFACE W/TEA '85 CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. Individual Proficiency Test of Critical Pers at 15, 30, 45, and 60 days. 2. Administer TACFIRE crew stability questionnaire to ea TACFIRE crewman.	Core C: Develop diagnostic tests to measure proficiency and decay levels. Variable 16: Determine effects of stability and turbulence.	1. Allows most efficient (time & dollars) costing of TACFIRE training to proficiency. 2. Determine frequency of retrain to sustain proficiency.
T_{S2}	1. Individual Proficiency Test of Critical Pers at 15, 30, 45, and 60 days. 2. Administer TACFIRE crew stability questionnaire to ea TACFIRE crewman.	Core C: Develop diagnostic tests to measure proficiency and decay levels. Variable 16: Determine effects of stability and turbulence.	
T_A			
T_{A2}			

WORKSHEET

10 April 1978

TITLE: RETENTION & PROFICIENCY TESTS ON COMMON AIT SKILLS SCHOOL/AGENCY: USAFAS/ARI POC/PHONE: LTC J. Neal, AV 639-3518
Dr. J. Schields, AV 284-8694

1. OBJECTIVES	2. SAMPLE SIZE	3. TEST UNIT (S)	4. DATA COLLECTION PLAN	5. FIELD TEST DATES/ ACTIVITIES	6. ARTS AREA OF INTEREST	7. LINKS TO ARTS MODEL	8. INTERIM/ FINAL REPORT DATE
To determine the retention and proficiency level of soldiers on common AIT skills.	500 troops	III Corps Arty	ARI Questionnaires	Ft Sill, OK, Apr - May	T_I, T_S	PROG to PROF	I-1 Jul F-TBD

ARI RETENTION & PROFICIENCY OF COMMON AIT SKILLS TEST — DELIVERABLE SUMMARY — 5 April 1978

	TEST ACTIVITY	INTERFACE W/TEA 'HS CORE/VARIABLES	INTERFACE W/BATTALION TRAINING MODEL
T_I & T_S	1. Measure proficiency attained on selected common tasks in AIT. 2. Measure retention of proficiency on selected common tasks after some period of time in unit.	Core A: Continue validation of threat oriented SM/ARTEPs. Core C: Develop diagnostic tests to measure proficiency and decay levels. Core D: Determine decay rates and frequency of required retraining. Variable 3: Determine allocation of tasks between institution/unit.	1. Validate selected tasks in critical functional areas. 2. Determine frequencies of retrain under various training methods.
T_{S2}			
T_A			
T_{A2}			

GUIDELINES FOR PREPARATION

of

SYSTEM WORK TEAM REPORTS

PREFACE

Introduction

This workbook was prepared by the Army Training Study Group (ARTS) to guide and facilitate the preparation of interim and final reports of the Systems Work Teams (SWT). Additionally, this workbook should guide the preparation of reports of other studies which ARTS intends to integrate into its Training Effectiveness Analysis for 1978 (TEA 78).

Situation

ARTS must be prepared to quickly and accurately assemble and synthesize numerous reports from SWT as well as other "piggybacked" studies and tests. While each individual study or test has great value, there will be even greater value in assembling results in various combinations. This demands that reports follow a common format as much as possible.

Strategy

To quickly and accurately assemble pieces of individual reports into new combinations requires that reports follow certain format and design characteristics. Basically, these are:

- individual tests be reported in a modular format so they can be extracted for use in other combinations.
- significant data elements from within individual tests also be reported in modular format, again so that they can be extracted in the same way.
- tests and data elements be coded to show their relationship to the ARTS model and the "essential elements of analysis" (EEA).

Comment	As stated above, this workbook is intended to facilitate the preparation of test reports. Inevitably there will be test information that will not fit this format. In this case, ARTS will be standing by to work out impromptu solutions with the test proponent agency.

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OUTLINING THE REPORT

Discussion

Most published reports describe the outcome of a single test. As such, the common format of the contents is:

I Abstract or Summary
- Problem
- Method or Test Design
- Findings or Results
- Conclusions

II Introduction
- Objective
- Hypothesis

III Method or Test Design
- Experimental Design
- Subjects
- Apparatus
- Procedure

IV Findings or Results

V Discussion

VI Conclusion

Appendices

Figures or Tables

Problem

While the outline above is logical for the presentation of a single test, most SWT are conducting and reporting on several tests. The outline above would, if used to report on mulitiple tests, cause the reader to page back and forth between sections to follow any one test.

Proposed Outlines

Since some contributors to TEA 78 are involved with single tests while others are involved with multiple tests, ARTS proposes the following two outlines:

SINGLE TEST OUTLINE

I Abstract
- Problem
- Test Design
- Findings
- Conclusions

II Introduction
- Objective(s)
- Hypothesis*

III Test Design
- Experimental Design
- Subjects
- Apparatus*
- Procedure

IV Findings

V Discussion

VI Conclusion(s)

Appendices

Figures or Tables

MULTIPLE TEST OUTLINE

I Abstract
- Problem
- Test Design
- Findings
- Conclusions

II Tests and Results
Test #1
- Objective(s)
- Hypothesis*
- Experimental Design
- Subjects
- Apparatus*
- Procedure
- Findings
- Discussion (of this indiv test)
- Conclusions (about this indiv test)

Test #2 (etc.)
(Repeat as required)

III Discussion (of combined test results)

IV Conclusions (about combined test results)

Appendices

Figures or Tables

NOTE: Asterisked items are optional

Comment	The two proposed outlines for reporting single or multiple test results provide a general structure. However, ARTS strategy is to have the test reports modularized and coded. Therefore the subjects of modularizing and coding will be discussed next. Later the discussion will return to how modules will integrate into the proposed general outlines.

AD-A194 143 ARMY TRAINING STUDY: TRAINING EFFECTIVENESS ANALYSIS 1978(U) ARMY TRAINING AND DOCTRINE COMMAND FORT MONROE VA F J BROWN 10 APR 78 SBI-AD-F000 119 2/2

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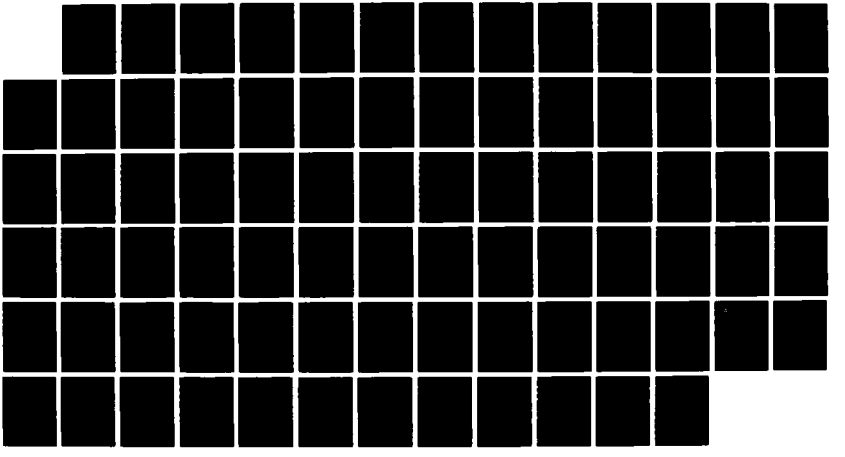
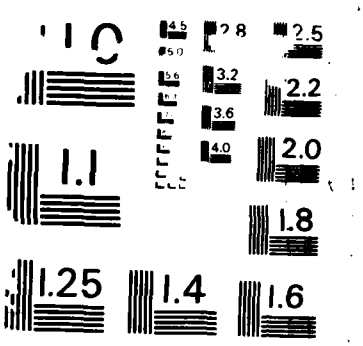




MODULARIZING REPORTS

Introduction	Modularizing the report means segregating and publishing in blocks of information that can be extracted and stand alone. This modularizing will be done on two levels, separate tests and data elements.
Definitions	Separate test- a test that addresses an SWT objective or an ARTS EEA. Data element- a part of a test that has the potential to be combined with other SWT tests or data elements to produce useful insights or the basis for broader generalizations.
Examples	Separate test- USAIS is conducting a separate test when it compares institutional versus unit TOW training. Data element- Within the example of a separate test given above, USAIS may gather information about training threat vehicle identification. This information would be a data element of great potential usefulness to other users.
Comment	ARTS recognizes that the definition of data elements is imprecise. If possible, the definition will be tightened up before report writing begins. For the moment, the intent in modularizing data elements is to make available, in extractable format, the small pieces of information that may have utility to others and in other combinations. When in doubt, call it a element and modularize it.

Summarizing	ARTS proposes that each separate test or data element from within a test be reported in a stand-alone module. Therefore, tests and data elements should be published in consecutive pages which can be extracted intact. Each new module should begin on a new page so pages would not have to be cut apart.
Some Rules	Rule #1 - If in doubt, call it a data element. Rule #2 - Publish modules on consecutive pages. Rule #3 - Always start a module on a new page.

IDENTIFICATION CODING OF MODULES

Introduction

To facilitate rapid and accurate identification of both separate test and data element modules, ARTS proposes an identication code for each module. The purpose of the code is to show how the module relates to;

- the ARTS model
- the ARTS objectives, EEA and situational variables

Explanation

As you know, to structure efforts toward its objective of relating resources to combat effectiveness, ARTS originally developed the following model;

TNG RES ▶ TNG PROGS ▶ TNG PROF ▶ WAR MODELS ▶ COMBAT EFFECTIVENESS

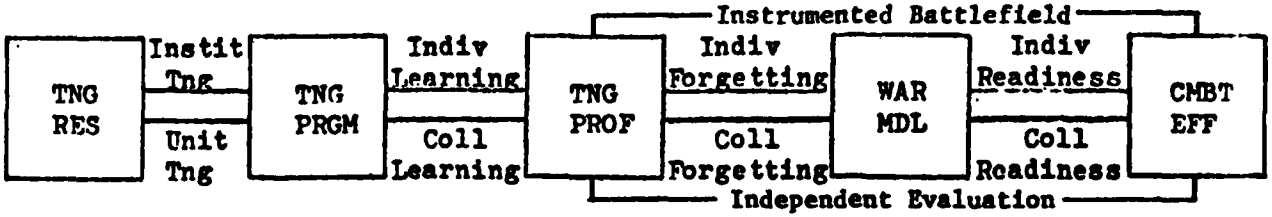
Each test has a specific scope with relation to the model, that is, each has an origin and a destination in the model. For example, some tests encompass TRAINING RESOURCES to TRAINING PROFICIENCY. Other tests encompass the entire model, TRAINING RESOURCES to COMBAT EFFECTIVENESS.

Path Through the Model

Additionally, there are paths through the model. Modules must indicate not only the point of origin and destination but the path within the model as well.

Paths Through ARTS Model

There are two or more bridges between each block of the ARTS model. They are;



Paths Within the Blocks

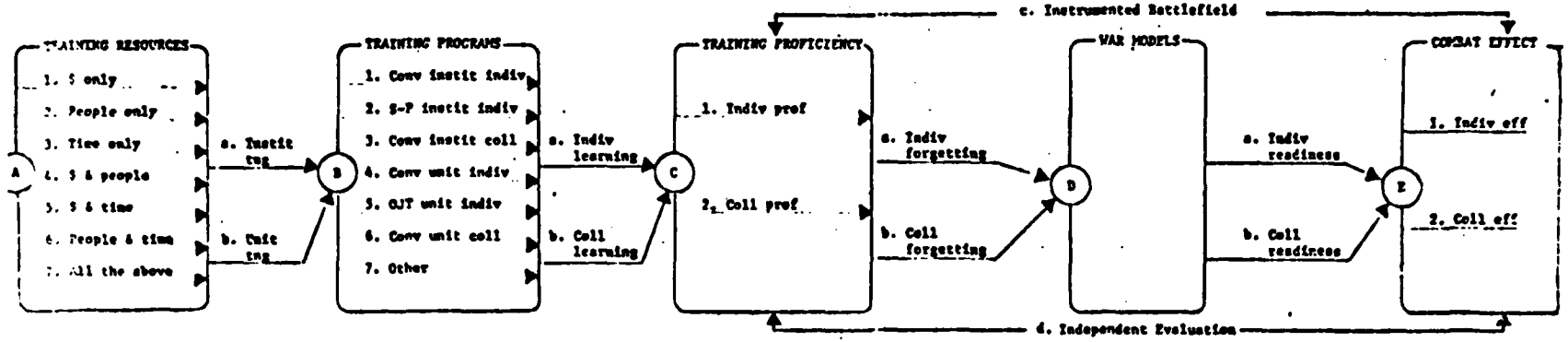
Additionally, there are paths within the blocks of the model. Considering the blocks one at a time;

TRAINING RESOURCES
- Dollars only
- People only
- Time only
- Dollars and people
- Dollars and time
- People and time
- All of above

TRAINING PROGRAMS
- Conventional institutional instruction for individuals
- Self-paced institutional instruction for individuals
- Conventional institutional instruction for collective
- Conventional unit training for individuals
- OJT in units for individuals
- Conventional unit training for collective
- Other

Paths Within the Blocks (continued)	TRAINING PROFICIENCY Individual proficiency Collective proficiency WAR MODELS (Internal paths not applicable to SWT) COMBAT EFFECTIVENESS Individual effectiveness Collective effectiveness
Combining Block and Bridge Paths	Summarizing, there are either two or seven paths through any block of the ARTS model (excluding the war models block). Further, there are two or more separate bridges between each block. By assigning a single letter or numeral to each possible leg of the overall path a basis is formed for a shorthand code.
Path Coding Model	On the following page, the ARTS model is expanded to show all possible paths. Further, each segment of the path has an individual identifying code letter or number. They follow this pattern; - All blocks are identified by a single capital letter. - All paths through a block are identified by a single number. - All bridges between blocks are identified with a lower case letter.

CODING MODEL



MODULE COVER SHEET

Introduction

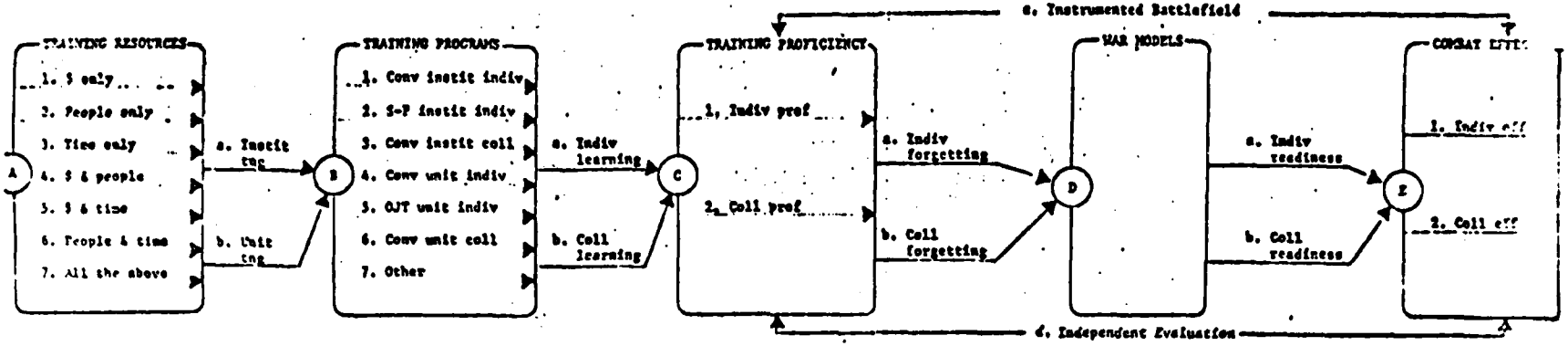
ARTS has designed a Module Cover Sheet to be placed on top of each module, whether the module be of a separate test or data element. The cover sheet is intended to facilitate the indication of the relationship of each module to;

- the ARTS model
- the ARTS objectives, EEA and situational variables

The Module Cover Sheet is shown on the next page.

MODULE COVER SHEET

Test Number_____ Data Element Number_____ Title_____ System_____ Date_____



OBJECTIVES AND EEA

_____A. Continue validation of threat oriented critical SM/ARTEP task , conditions, standards.

_____1. Are SM tasks/ARTEP events based on the documented results of appropriate front-end analysis techniques?

_____2. Are ARTEP events supported with prerequisite SM tasks?

_____3. Was performance of SM/ARTEP task actually necessary for the accomplishment of a specific mission? i.e., was it truly a critical task?

_____4. Is the specific level of proficiency greater than, equal to, or less than that required to meet the threat?

_____B. Determine time/costs to achieve optional proficiency for critical individual/collective tasks.

_____1. What resources are required in the institution?
a. Dollars d. Dollars & people g. $, P & T
b. People e. $ & T
c. Time f. P & T

_____2. What are resources required in the unit?
a -- g as above.

_____3. Does the collected data reflect deviation from real-world normalcy, i.e., validity of trainee/instructor, NCO/officer fill, unusual environmental constraints or advantages?

_____C. Continue to develop diagnostic tests to measure individual/collective learning decay levels.

_____1. Do current diagnostic tests account for learning/decay which occurs subsequent to course/period of instruction? (i.e., learning which occurs/decays during situational dependent performance of duty.)

_____2. Does the diagnostic test program provide for testing at two or more data points? i.e., 30, 60 & 180 days after training?

_____3. Do diagnostic tests provide data to determine specific skill/proficiency has loss and retraining to proficiency required? (i.e., makes the corrective action obvious).

_____4. What is the training resource requirement to reacquire mastery after various intervals subsequent to the original training program? (Note: All training activity, or lack thereof, must be considered.)

_____D. Determine decay rates and frequency of retraining to sustain optimal proficiency for individual/collective critical tasks (time/costs).

_____1. What is the time to initially learn a skill to mastery?

_____2. After specified intervals without practice what is the time required to relearn a skill to mastery?

_____3. Within task performance, which elements are forgotten first?

_____4. What is the frequency of retraining or practice necessary to ensure retention of acceptable levels of proficiency?

SITUATIONAL VARIABLES

_____1. Reduce length of selected courses for high density/low tech MOS's vs. low density/high tech MOS's.
_____2. Resources/effect of tng common vs. technical skills only in institutions.
_____3. Optimal alloc of tng tasks between institution/unit.
_____4. Validate selected critical tasks for service school development of how to train to combat proficiency at least cost in a unit.
_____5. Impact of transfer of selected AIT to FORSCOM.
_____6. Impact of transfer of BT to FORSCOM.
_____7. Impact of transferring all entry level tng to FORSCOM.
_____8. Impact of transfer of all except critical task tng to FORSCOM.
_____9. Impact of transfer of all except high-tech task tng
_____10. Effect of expanded BT to develop cross-tng in spt MOS.
_____11. Effect of expanded OSUT for selected high-pri weapons.
_____12. Determine exportable/job tng packages required to spt tng in units.
_____13. Determine tng packages to assure supervisor competence
_____14. Determine MOS transition tng on proficiency on new equipment/job.
_____15. Determine resources required to attain unit collective proficiency (T_A).
_____16. Effects of personnel stability/turbulence of individual/collective proficiency.
_____17. Determine effects of reduced officer/NCO fill on collective/individual tng.
_____18. Effects of introducing less capable personnel into the tng base and units.
_____19. Evaluation of rapid refresher tng programs for Reserve Component units.
_____20. Develop tng concepts to individual/collective proficiency with reduced resources.
_____21. Develop replacement (D+30 to D+180) unit upgrade tng programs.
_____22. Determine tng required to exploit the enhanced capability designed into modernized equipment.
_____23. Determine optimal use of equipment pools to support AC/RC tng.
_____24. Develop tng programs to assimilate new equip in units.
_____25. Validate effectiveness and efficiency of tng devices.
_____26. Develop tng programs to conduct continuous combat.

Completing the Top Line

Instructions for entries in the top line are as follows;

Test Number - number separate tests sequentially in the order they are presented in the report. If the cover sheet is for a data element module leave this item blank.

Data Element Number - number data elements sequentially in the order they are presented in the report. If the cover sheet is for a separate test leave this item blank.

Title - enter the title of the test or data element of your own choosing.

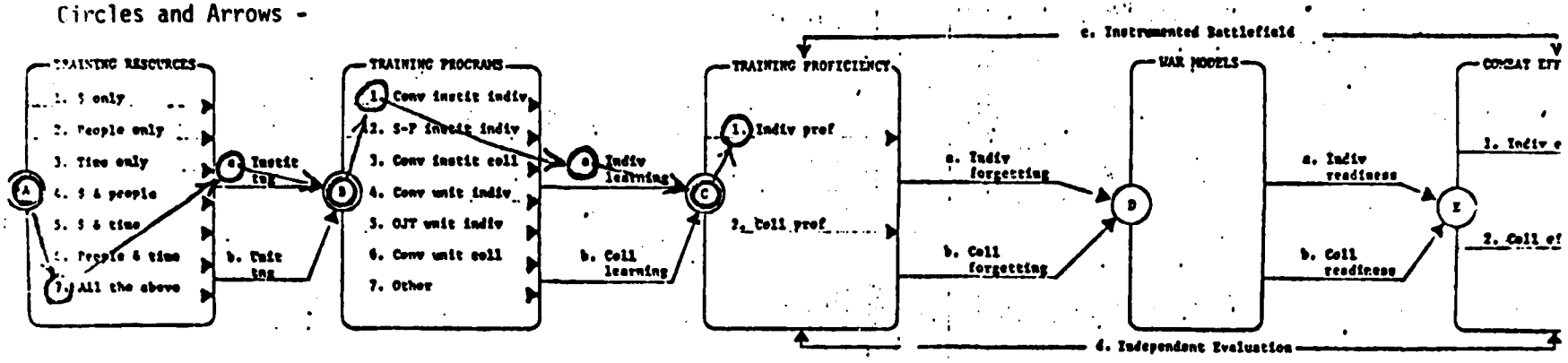
System - enter the equipment or MOS abbreviation, i.e., M60, TOW, 05C etc.

Date - enter date of the report.

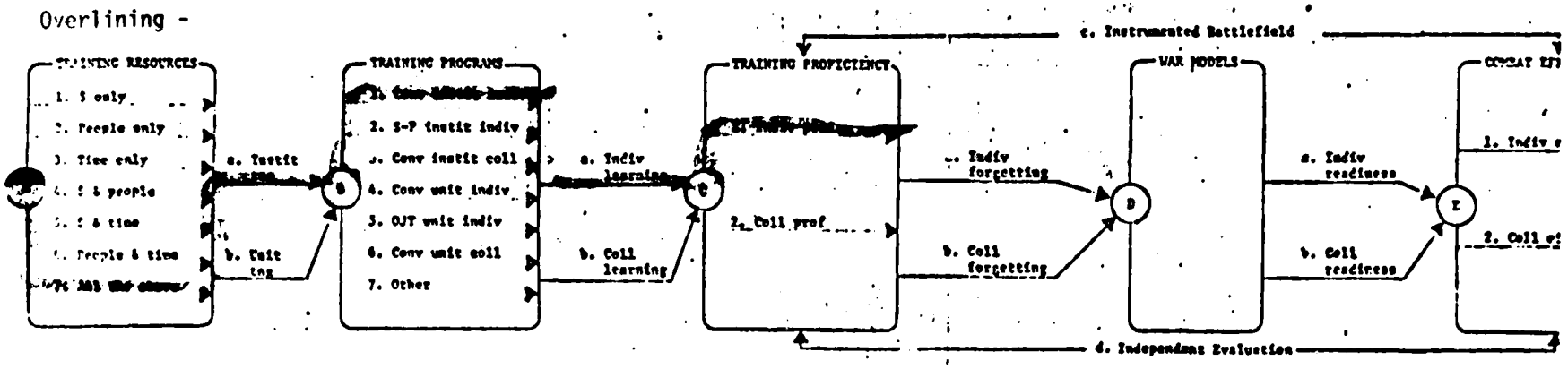
Path Through Module

The Coding Model is reproduced on the cover sheet so users can "draw" the point of origin, path and destination. This can be done with an overlining pen or by circles and arrows as displayed on the next page.

Circles and Arrows -

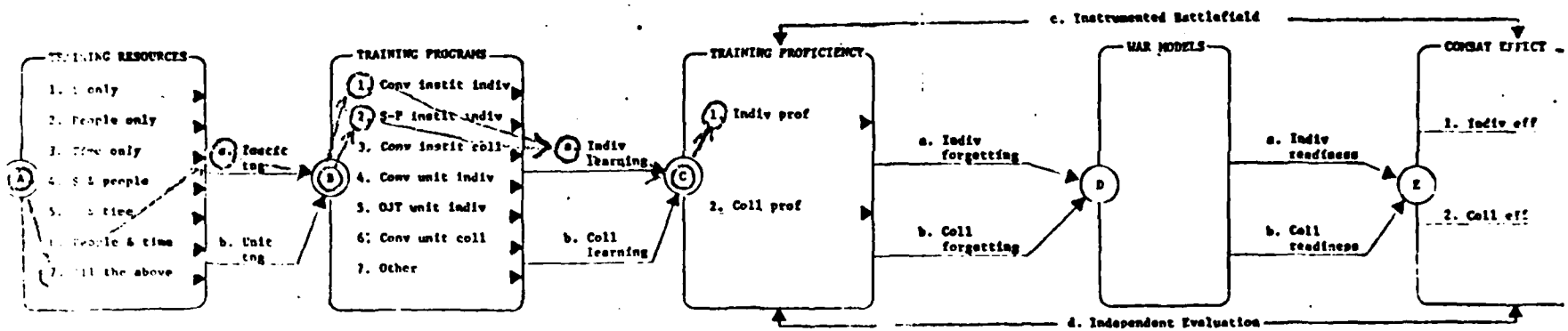


Overlining -



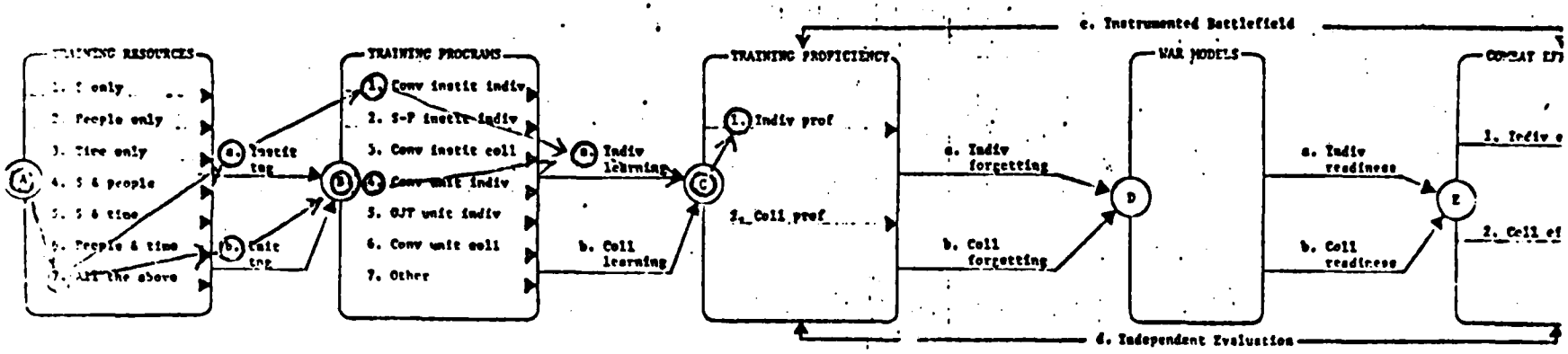
Dual Paths

Some tests either compare paths or deliberately encompass parallel paths. To show this, simply overline or mark both paths. For example, if a school is comparing conventional with self-paced courses overline both paths as shown below;



Looping Through Model

If a test encompasses both institutional and unit training programs in effect it is looping back through the Model. For example, if an SWT is measuring individual proficiency of AIT graduates who have also had conventional unit individual training, and assuming all resource costs were known the path would loop like this;



ARTS Objective EEA, and Variables	The bottom half and the reverse side of the cover sheet lists the ARTS objectives, the EEA and situational variables. They collectively constitute a distillation and refinement of the original Study Directive EEA and the TEA 85 core objectives and situational variables as they are now envisioned by ARTS to apply to TEA 78.
Instructions	In the space provided check all objectives, EEA and variables that the module relates to either <u>directly</u> or <u>indirectly.</u>

PUTTING IT ALL TOGETHER

Assembling the Report	Refering back to the two proposed outlines on page 2, in each case a Module Cover Sheet for a test is inserted at the beginning of Section II. In the case of the Multiple Test Outline, there would be a cover sheet on each separate test.
Data Element Modules	All data element modules will be placed in the report as Appendix A. Again, each data element module would have a cover sheet.
Problems?	If problems are encountered using these instructions for preparing reports call ARTS, Autovon 354-1461

9 April 1978

ARTS TRAINING RESOURCE METHODOLOGY

1. PURPOSE

Provide SWT guidance for collecting data for the development of relationships between resources and training conducted both in the institution and in the unit.

2. GROUND RULES

A. Training resources are time, personnel, and dollar (FY78) costs.

B. In SWT investigations which involve a comparison of training alternatives the status quo will be included as one of the alternatives in order to establish a baseline. One time cost and/or savings associated with an investigation of alternative unit training strategies will be identified.

C. T_I resource requirements will be provided to SWT by HQ TRADOC (DCSRM) using the methodology contained in TRADOC Reg 11-5 and associated cost analysis studies of ATCs and schools. SWT input requirements to HQ TRADOC for costing alternative T_I programs are at TAB A.

D. FORSCOM/DWT in coordination with SWT is requested to determine the resource impact on unit training as a result of any transfer of institutional training to unit training using T_S/T_A ARTS resource methodology (ATRM).

E. Resource data collected for ARTS should reflect the training resource requirements for the training program(s) (or

portions thereof) which are being investigated by ARTS with respect to training proficiency. For example, if a specific portion of a tank crew training program is being evaluated with respect to a pertinent measure of crew proficiency, resource data collected should reflect the cost of that portion of training a tank crew rather than the cost of the complete program for training a tank crew. The cost of the complete program for training a tank crew would be relevant, however, if the entire program was being reviewed with respect to the overall proficiency of a tank crew.

3. METHODOLOGY

A. SWT are responsible for determining which investigations of training programs (or portions thereof) under their review will be supported with training resource requirements data. Although the level of resolution of relating resources to training is dictated by the particular insights being sought by a SWT, the maximum levels of aggregation of data are:

(1) T_I by course graduate.

(2) Total T_{S1} by MOS and skill level per soldier.

(3) Total T_{S2} by MOS and skill level per soldier.

(4) Total T_{A1} by separate unit level, i.e., crew/squad/section, platoon, company, and battalion.

(5) Total T_{A2} by separate unit level. Formats for the display of the T_I, T_S, and T_A resource data are at TAB's B, C, and D respectively. T_{S1} and T_{S2} use a common format as does T_{A1} and T_{A2}. It is acknowledged that some SWT

investigations will require resource data to be collected for only a portion or segment of T_{S1}, T_{A1}, etc. The tank crew example in paragraph 2F illustrates this point for T_A while the examples given in the next paragraph illustrate different portions of T_S for which resources may be collected.

B. The total individual training program in a unit for a particular MOS & skill level may be divided and subdivided into meaningful subsets of training programs which are mutually exclusive and totally exhaustive. T_{S1} may be addressed in any of a number of ways depending upon the intended use of the data.

(1) All formally scheduled instruction (Total T_{S1} or $^{TT}S1$) includes Soldier's Manual (SM) tasks, as well as non-SM-tasks instruction which is required for the development of a "whole soldier." Human relations and defensive driving are examples of non-SM-task instruction.

(2) Divide Total T_{S1} into two subsets; all instruction on SM tasks (SM T_{S1}, and remaining instruction devoted to non-SM-task instruction (NSM T_{S1}).

(3) Subdivide SM T_{S1} into subsets so that each subset addresses a relevant grouping of SM tasks. Relevant groupings of SM tasks for 11B10 would be those grouped in FM7-11B1 by Section (e.g., Battlefield Survival, Combat Techniques, etc.) or by Subsection (Subsections within the Combat Techniques Section address Basic Individual Techniques, Land Navigation, Communications, etc.) or by....The subdivision may continue to the

point that a multiple subdivision of T_{S1} is addressing training relating to one sub-task of a specific SM task. The point being, data should be collected which reflects (defines) only that particular training which contributed to the proficiency being measured.

C. The treatment of time with respect to the categories of training is as follows:

(1) The time available for a unit to conduct formally scheduled training is recognized as a constraint. For the purpose of this analysis, this constraint is set at 1848 hours (48 weeks x 5 day/week x 8 hours/day - 9 holidays x 8 hours/day). This 1848 hours is distributed between T_{S1}, T_{A1}, T_{A2}, and T_N. T_N is the time devoted to non-training activities such as guard, detail, training support, demonstrations, etc., all of which compete for a chunk of the 1848 hours.

(2) T_{S2} does not compete for any of the 1848 hours as it is training conducted at times other than when training is formally scheduled. T_{S2} may be after duty hours time or slack time during normal duty hours, and therefore, is viewed as bonus time achieved through motivation or training efficiencies. Although T_{S2} is not competing for any of the 1848 hours, the hours expended must be accounted for in order to provide insights on TT_S. Dollar costs are attributed to T_{S2} only for the unique training support material required exclusively for T_{S2}. Guidance on assigning costs to such materials will be provided on a case-by-case basis as SWT identify the unique

training materials in the course of their investigations.

(3) E is considered to be restricted to individual unit training conducted during time formally allocated to T_A; and therefore, it is addressed in the same manner as outlined above for T_{S2}. It is acknowledged that training on particular individual tasks may be formally transferred from T_{S1} to E, and thus, this training efficiency frees a given number of T_{S1} hours for reallocation to other T_{S1} training or for reallocation to T_A. An example of a T_{S1} training event which may be formally transferred to E is the preparation of range cards by tank gunners.

D. The collection of resource data for T_{S1} and E for a given MOS and skill level is based upon the TT_{S1}, SM T_{S1} or subsets of SM T_{S1} training programs to be investigated. Data for T_{A1} are collected based upon the particular unit level (crew, platoon, etc.) program or particular portion of a unit level program to be investigated. SWT have lead responsibility of identifying the detailed content and "calendar time period" of the specific T_{S1} and E program (or portions thereof) as well as the T_{A1} and T_{A2} programs for which resource data are to be collected. Requests for assistance available from ARTS Consultant Groups, HQ TRADOC, HQ FORSCOM, HQ USAREUR, and DWT should be made through the ARTS resource point of contact, LTC Michael J. Hatcher, AV 354-1461.

(1) A unit will have a given unit training program for each MOS by skill level which will formally allocate a specific

number of the 1848 hours available to the soldier with that given MOS and skill level. The program is different for the 11B and 11E, as well as, for the 11E10 and the 11E20. Each unique program (e.g., 11E20) will consist of scheduled training which must be identified as SM T_{S1}, or NSM T_{S1}. A highly structured unit training program may even have individual training scheduled during a time period scheduled primarily for T_{A1}. Such individual training must be identified as E. Additionally, one can conceive of a unit having separate collective training programs for each level of collective training (crew, platoon, company, etc.). An example of a portion of a hypothetical training program is at TAB E. Such detailed programs do not exist in units; however, SWT need to construct such a tool for an aid to its analysis. The level of detail of the program constructed by the SWT is dictated by the investigations to be made. The ID#/Task shown on TAB E relates to the ID#/Tasks which appear in the 11E Soldier's Manual and the Mech Inf/Tank Task Force ARTEP. The assigned training categories segregate training events for the purpose of data collection. The training events within a given category should be grouped depending upon the particular investigation a SWT plans to make. (See Paragraph 3B).

E. The basic building blocks for the collection of training program data are the specific training events identified within the training program as illustrated at TAB E. The data for separate events may be aggregated to reflect the total

requirements for that portion of the training program for which proficiency is to be measured. The resource sensitive data elements to be addressed for each training event are:

(1) Equipment usage by type (M151, M113, etc.) to include miles, hours, or rounds.

(2) Ammunition requirements by number of rounds by DODIC.

(3) Number of trainees by grade.

(4) Number of trainers by grade who physically conduct the training.

(5) Amount of trainee time and trainer time allocated to the training. Trainer time includes preparation, instruction, and evaluation.

(6) TDY (EOE 2100) and transportation (EOE 2200) requirements for trainees and trainers.

(7) Training aids/devices utilized.

(8) Training materials and special supplies consumed.

F. An example format for collecting the resource data associated with a particular training event is at TAB F. The example uses ID#/Task 6-12, Tank Platoon Battle Run as shown on the hypothetical training program at TAB E. As an assistance in preparing a training event resource data collection worksheet, listings of vehicles, weapons, other equipment, and ammunition associated with combat and combat support battalions is provided at TAB G.

G. The procedures for deriving the dollar costs of a training event are shown at Inclosure 1 to TAB F, continuing

with the Tank Platoon Battle Run example as a vehicle. The format for the costing procedures is keyed to the training resource data display sheets (TAB's B, C, and D). The cost factors necessary for estimating costs of training are at the following TAB's: TAB H, Military Personnel and Allowances; TAB I, Vehicle Usage; TAB J, Weapon Usage; TAB K, Other Equipment; TAB L, Ammunition; and TAB M, Listing of MACOM Wide Cost Factors for Program 2 Mission (Fixed), Program 2 Base Ops (Variable), and Program 2 Base Ops (Fixed). Additionally, guidance for locally developing the man hours associated with the Battalion Training Management Personnel is included at TAB N.

4. ADDITIONAL GUIDANCE

The above guidance should cover most situations; however, additional guidance is available from your ARTS Resource POC, AV 354-1461.

SWT Input Requirements Required for Costing Alternatives T_I Programs

1. Course title and number.

2. Name of installations at which the course is taught and any changes to be addressed under the alternative.

3. Current length of course expressed in weeks and days, e.g., 5 weeks and 2 days and any change to course length.

4. Any changes to types of instruction (e.g., lecture, PE, self-paced) included in the alternative courses.

5. Ammunition requirements by quantity and DODIC for the status quo and alternatives.

6. Changes in tng aids/devices, quantity by item (e.g., Bessler Cue See, TV).

7. Revised instructor contact hours.

8. Frequency of classes per year, status quo and alternative.

9. Changes in average grade of instructors.

10. Changes in average grade of students.

11. Changes in school troop requirements expressed in additions or decrements of man days of support.

12. Any changes in training overhead, e.g., school brigade, office of Director Training Developments.

13. Changes in requirements for equipment purchased with Procurement dollars.

14. Any one time costs by OMA/MCA for the modification or construction of facilities.

15. Identify additional facilities which are required by a proposed T_I Program to include the source of those facilities.

16. Identify facilities which under a proposed T_I program will become available for an alternative use.

TAB A

COURSE TITLE:

COURSE NUMBER/MOS:

DOLLARS (FY78)	OMA	MAP	PA
Variable			
Program 8 Mission			
Instructional Dept			
Other			
Program 8 TOE Spt			
Ammunition			
Pay & Allowances			
Students			
All others			
Travel Pay to Course			
Per Diem at Course			
Program 8 Base Ops			
Support Cost (Tng Aids)	_____	_____	_____
TOTAL:			
Fixed			
Program 8 Mission			
Program 8 Base Ops			
Program 8 TOE Spt			
Support Costs (Tng Aids)	_____	_____	_____
TOTAL:			
TOTAL VARIABLE & FIXED	_____	_____	_____

TIME/PERSONNEL:

Student Course Length _____

Direct Man weeks of effort of

Instructional Depts & School Overhead. Civ_____ Mil_____

T_S* RESOURCE REQUIREMENTS

MOS & Skill Level: _____

Authorized Grade: _____

Average Pay Grade of Personnel Assigned to MOS & Skill Level: _____

Level of Resolution of T_S*. (e.g., TTS_1, - SM TS_1 - Combat Tech - Basic Ind Tech, SM ID#/TASK, etc. (See para 3D)

DOLLARS (FY78)	OMA	MPA	PA	TOTAL
Variable				
Program 2 Mission (Equipment usage)				
Ammunition				
Pay & Allowances				
TDY/Transportation				
Program 2 Base Ops				
Training Aids/Devices				
Training Materials & Special Supplies Consumed	____	____	____	____
Fixed				
Program 2 Mission				
Program 2 Base Ops	____	____	____	____
TOTAL:				
TOTAL VARIABLE & FIXED:				

TIME/PERSONNEL

"Calendar time period" over which this training is conducted. (e.g., 1 yr, 1 qtr)

Trainee time consumed on this training. (e.g., 45 hrs)

Manweeks** of direct effort required to Spt this training. _____

Identification of unit from which data was collected. _____

* Indicate T_{S1} or T_{S2}.

** Also may be expressed as man hours or man months, which ever is most meaningful for the particular situation.

T_A* RESOURCE REQUIREMENTS

UNIT LEVEL: (Crew, squad, section, platoon, company or battalion)

TRAINING ID#/TASK: (Relate to ARTEP ID#/TASK)

DOLLARS (FY78)	OMA	MPA	PA	TOTAL
Variable				
Program 2 mission (Equipment usage)				
Ammunition				
Pay & Allowances				
TDY/Transportation				
Program 2 Base Ops				
Training Aids/Devices				
Training Materials & Special Supplies Consumed	____	____	____	____
Fixed				
Program 2 Mission				
Program 2 Base Ops	____	____	____	____
TOTAL:				
TOTAL VARIABLE & FIXED:				

TIME/PERSONNEL

Training Unit Time (Unit hours, e.g., 12 Platoon hours)

Man weeks** of direct effort required to support the Tng: _____

Calendar time period associated with T_A being addressed: (e.g., 1 yr, 1 qtr,

Identification of Unit from which data was collected. _____

* Indicate T_{A1} or T_{A2}

** Also maybe expressed as manhours or man months, which ever is most meaningful for the particular situation.

PORTION OF UNIT TRAINING PROGRAMS FOR:

IN#/TASK	TRAINING EVENT	ATTENDED BY	TIME	INSTRUCTOR	TRAINING CATEGORY	YEARLY FREQUENCY
			11E20 TANK GUNNER			
7029	Boresighting	All gunners	4 hrs	PSG	T_{S1}	4
7020	Prepare Range Cards	Gunners		TC	E	Conducted during Co Task 6-12
7022	Prepare to Fire Check	Gunners		TC	E	do
7033	Fire From Range Card	Gunners		Plt Ldr	E	do
	Human Relations	All	2 hrs		T_{S1}	1
	Detail Company	All	8 hrs	N/S	T_N	12
			TANK CREWS			
9-10	Tactical Movement	All tank crews	2 hrs	Plt Ldr	T_{A1}	7
			TANK PLATOONS			
8-29	Plt Battle Run (Live Fire)	All tank Platoons	4 hrs	Plt Ldr	T_{A1}	3
6-12	Prepare Strong Point	Entire Company	4 hrs	Co Cdr	T_{A1}	2

TAB E

Company A
1st Bn, 53d Armor
TA_1, ID#/TASK 6-12, Tank Platoon Battle Run

Trainee Personnel

MOS	GRADE	AUTH	ASSIGNED	MAN HOURS
11E10	E-3	5	8	32
11E10	E-4	5	2	8
11E20	E-4	0	2	8
11E20	E-5	5	3	12
11E30	E-5	0	1	4
11E30	E-6	3	2	8
11E40	E-6	0	1	4
11E40	E-7	1	0	0

Trainer Personnel

MOS	GRADE	AUTH	ASSIGNED	MAN HOURS
12A	O-1	1	1	8*

* Includes 4 hrs preparation.

Participating Weapons

WPN	CAL AMMO	NO	AVG RD/WPN	AVG MC/WPN
Tank M60A1	105mm	5	7	30
MG, Veh Mtd	.50cal	5	100	0
MG, Veh Mtd	7.62mm	5	400	0

Other Equipment - None.

TDY/Transportation - None. Note: If the platoon expended TDY funds (EOE 2200) or transportation funds (EOE 2100) to travel to a live fire range, these costs would be listed.

Training Aids/Devices Used - None. (If any such materials were used they should be listed to include usage rates. Costs will be provided by ARTS resource POC on a case by case basis as requirements are identified.

Training Materials & Special Supplies Consumed - None. (If any are consumed, quantities should be identified. If costs cannot be determined by SWT, guidance will be provided on a case by case basis).

Training Unit Time - 4 platoon hours.

(Example Format for Resource Data Collection Work Sheet)

Calendar Time Period Associated With TA Being Addressed - N/A (This entry is not applicable for separate training events; however, if events are aggregated over time, that time period should be shown, e.g., 1 yr, 1 qtr, etc.).

Man Hours of Direct Effort Required to Support this Training - 0.2 hrs (This entry includes a prorated share of the time of those responsible within the battalion for training management.

Unit Identification - 1st Platoon, A Co, 1/53 Armor.

NOTE 1: If additional resources were required to support this live fire exercise (e.g., range guards, ammo handlers, controllers, safety personnel, etc. the associated man hours and equipment usage need to be recorded using the same format as for the trainees.

NOTE 2: Calculation of dollar values associated with this training are shown at Incl 1 to this TAB.

Calculations of Dollar Values Associated
With Live Fire Exercises of 1st Platoon, A Co., 1/53 Armor

1. Program 2 - Mission (Equipment Usage) -

Vehicles	Quantity	Avg Mi	Tot Mi	$/Mi*	Total $
M60 TK	5	30	150		

Weapons	Quantity	Cal Ammo	Avg Rd/Wpn	Tot Rd	$/Rd*	Total $
M60 TK	5	105mm	7	35		
MG, HB Fixed	5	.50Cal	100	500		
MG, LT Fixed	5	7.62mm	400	2,000		

Other Equipment - None.
NOTE: See TAB G for a listing of "Other Equipment" and TAB K for appropriate cost factors. $ OMA

2. Ammunition

Cal of Ammo	Total # of Rd	$/Rd*	Total $
105mm	35		
.50Cal	500		
7.62mm	2,000		

$ PA

3. Pay & Allowances

Trainees & Trainers

Grade	No Assigned	Man Hours	$/MH*	Total $
E-3	8	32	4.4329	
E-4	4	16	4.8474	
E-5	4	16	5.7754	
E-6	3	12	6.8523	
O-1	1	8	6.6185	
	15	84		

$ MPA

Battalion Training Management Personnel

Man Hours	$/MH**	Total $
0.02		$ MPA

Other Personnel - None [If other personnel were required to support this training (See NOTE 1 of TAB F) their pay and allowances would be calculated as shown above for trainees and trainers].

$ MPA

Incl 1 to TAB F

Total Pay and Allowances - $ MPA

4. TDY/Transportation

NOTE: Cost must be developed locally based upon specific requirements for the training event. This example did not have any requirements.

$ OMA

5. Program 2 Base Ops (Variable)

Total Man Hours	X	$/MH	Total $
84.02			$ OMA

NOTE: Total man hours is the sum of all the man hours associated with the pay and allowances calculations in para 3 above. The $/MH is a MACOM wide cost factor. A listing of these factors is at TAB M.

6. Training Aids/Devices

NOTE: None for this example; however, ARTS Resource POC will provide costs to SWT on a case by case basis as requirements are identified by SWT, costs of locally developed aids/devices must be determined locally. $ OMA $ PA

7. Training Materials & Special Supplies Consumed

NOTE: The NOTE for para 6 applies. $ OMA $ PA

8. Program 2 Mission (Fixed)

Total Man Hours	X	$/MH	Total $
84.02			$ OMA

9. Program 2 Base Ops (Fixed)

Total Man Hours	X	$/MH	Total $
84			$ OMA

* The values for these cost factors are taken from a listing of cost factors found at TAB G&L.

CONTENTS OF TAB G
LISTINGS OF VEHICLE, WEAPONS,
OTHER EQUIPMENT, AND AMMO FOR:

Armor Bn - TAB G1

Mech Inf Bn - TAB G2

Fld Arty (155 SP) Bn - TAB G3

VEHICLES

	NOMENCLATURE	AUTH	NO PART	AVG MI /VEH
1 -	CARR.CP	6		
2 -	CARR.MLRS	14		
3 -	LAUNCH.M60 CHAS.	2		
4 -	SEC.VEH.LT.	2		
5 -	PLT.VEH.MED.	5		
6 -	TPK.CGO.5/4T	1		
7 -	TPK.CGO.5/4T	6		
8 -	TPK.CGO.2 1/2T	21		
9 -	TPK.CGO.ST	6		
10 -	TPK.CGO.ST	5		
11 -	TPK.TANKER	4		
12 -	TPK.UTIL.1/4T	34		
13 -	WRECKER.ST	1		
14 -	BRIDGE.SCISSOR	1		
15 -	----------	----		
16 -	----------	----		
17 -	----------	----		
18 -	----------	----		
19 -	----------	----		
20 -	----------	----		

WEAPONS

	NOMENCLATURE	AUTH	CAL AMMO	NO.	AVG RD /WPN	AVG MI /WPN
31 -	CARR.106MM MORT	4	4.2			
32 -	CARR.TOW	4	TOW			
33 -	LAUNCH.SPEN.	18	40MM			
34 -	LAUNCH.ROCK.	5	66MM			
35 -	MG.HB.VEH.MTD.	26	.50			
36 -	MG.HB.GND.MTD.	14	.50			
37 -	MG.HB.FIXED	54	.50			
38 -	MG.LT.FIXED	54	7.62			
39 -	PISTOL	200	.45			
40 -	RIFLE	271	5.56			
41 -	SUB MG	122	.45			
42 -	TANK.M60	54	105M			
43 -	TRACKER.SU-36	4	DRAG			
44 -	----------	----	----			
45 -	----------	----	----			
46 -	----------	----	----			
47 -	----------	----	----			
48 -	----------	----	----			
49 -	----------	----	----			
50 -	----------	----	----			

OTHER EQUIPMENT

	NOMENCLATURE	AUTH	NO.	AVG MI/HR.
21	-GEN. 5KW.60HZ	8		
22	-SEC.STEER.EQ	7		
23	-GEN.45KW.400HZ	4		
24	-RADAR.GN/TPS 5	4		
25	-FIT	1		
26	----------	----		
27	----------	----		
28	----------	----		
29	----------	----		
30	----------	----		

OTHER COSTS

	NOMENCLATURE	COSTS
1 -		
2 -		
3 -		
4 -		
5 -		
6 -		
7 -		
8 -		
9 -		
10 -		

REMARKS

1 -	
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3 -	
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TAB G1A

ARMOR BATTALION
AUTHORIZED AMMUNITION & REQUIREMENTS

	DESCRIPTION	ORT/ARTEP	QUAL/FAM	DODIC	RQMT		DESCRIPTION	ORT/ARTEP	QUAL/FAM	DODIC	RQMT
1	12 GA #7/9 SHOT	0	0	A014	------	2	12 GA #7/9 SHOT	0	0	A017	------
3	5.56 TRACER	1872	0	A068	------	4	5.56 MM BALL	93682	23500	A071	------
5	5.56 MM BLANK	840	343780	A080	------	6	.22 SHT BLANK	0	1200	A085	------
7	.22 BALL LR	0	134192	A086	------	8	7.62 MM BLANK	0	449700	A111	------
9	7.62 MM TR	278002	63700	A131	------	10	7.62 MM TR CTN	0	150	A140	------
11	.45 BALL	22935	0	A475	------	12	.50 4/1 TR M05	54270	40500	A520	------
13	.50 4/1 M2	11060	8100	A557	------	14	.50 BLANK	0	30000	A559	------
15	40 MM HE	312	108	B568	------	16	40 MM PRAC	456	0	B577	------
17	105 MM HEAT	648	0	C508	------	18	105 MM HEP-TPT	540	1080	C510	------
19	105 MM HEAT-TPT	1512	1020	C511	------	20	105 MM WP	0	108	C512	------
21	105 MM HEP-T	432	491	C518	------	22	105 APDS-TP-T	5022	810	C520	------
23	4.2 HE	0	483	C704	------	24	4.2 HE	0	0	C705	------
25	4.2 ILL	1464	540	C706	------	26	4.2 WP	0	90	C708	------
27	DRAGON	235	0	G839	------	28	GREN HD FRAG	555	0	G901	------
29	FZ GREN HD PRAC	555	0	G907	------	30	FZ HD GR PRAC	0	0	G909	------
31	FZ HD GR PRAC	0	0	G924	------	32	GREN SMK HC	0	270	G930	------
33	GREN SMK GRN	9	270	G940	------	34	GREN SMK YEL	0	270	G945	------
35	GREN SMK RED	0	270	G950	------	36	GREN SMK VIOL	0	270	G955	------
37	GREN HD CS	0	300	G924	------	38	GREN HD CS	0	0	G963	------
39	RKT 66 MM LAW	100	54	H557	------	40	RKT 35 MM SUB CAL	2775	108	H760	------
41	FZ MINE AT PRAC	0	96	K051	------	42	MINE AP PRAC M68	0	192	K129	------
43	MINE AT PRAC M20	0	96	K231	------	44	CAPSULE CS	0	168	K765	------
45	SMK RKT HC	0	90	K866	------	46	SIGNAL GSP	0	260	L310	------
47	SIGNAL RSC	0	130	L306	------	48	SIGNAL WSC	0	260	L307	------
49	SIGNAL RSP	0	130	L311	------	50	SIGNAL WSP	0	130	L312	------
51	SIGNAL GSC	0	130	L314	------	52	SIG SMK GRN (MINI)	0	750	L341	------
53	SIG SMK RED (MINI)	0	750	L342	------	54	SIG SMK YEL (MINI)	0	750	L343	------
55	FLARE TRIP	0	120	L495	------	56	SIM GRND BRST	0	2000	L594	------
57	SIM FLARE FLASH	0	100	L598	------	58	SIM BOOBY ILL	0	100	L599	------
59	SIM BOOBY UNIT	0	100	L600	------	60	SIM HD GREN	0	1100	L601	------
61	SIM ANTI EXPL	9	12	L605	------	62	DEMO TNT 1/4#	42	360	M030	------
63	CRATER CHG	0	32	M042	------	64	CAP BLST ELEC	0	390	M150	------
65	CAP BLST NON ELEC	42	60	M151	------	66	COUPL DS F DEV	0	90	M327	------
67	CORD DET	0	20	M921	------	68	CORD DET	0	2000	M956	------
69	FZ BOOST TIME	100	100	M979	------	70	IGN TIME FZ	42	60	M66	------
71	SIM REPC CAP M2	9	810	N010	------	72	FUZE PD	0	222	N345	------
73	FLR PROX	0	93	N912	------	74	REDEYE	0	1	9923	------
75	GP TOW PRAC	0	2	1521	------	76	GM TOW PRAC	0	2	1537	------
77	BOOST SIM TOW	0	920	2566	------						

MECH INF BN

VEHICLES

	NOMENCLATURE	AUTH	NO PART	AVG MI /VEH
1 -	CARRIER,M577	7		
2 -	CARRIER,M113	59		
3 -	RECOV.VEH.M578	6		
4 -	TRK,AMB,5/4 TON	1		
5 -	TRK,CGO,5/4 TON	7		
6 -	TRK,CGO,2 1/2T	14		
7 -	TRK,CGO,2 1/2T W	2		
8 -	TRK,CGO,5 TON	6		
9 -	TRK,STON,W/W	9		
10 -	TRK,UTIL,1/4 T	34		
11 -	WRECKER,5 TON	1		
12 -	----------	----		
13 -	----------	----		
14 -	----------	----		
15 -	----------	----		
16 -	----------	----		
17 -	----------	----		
18 -	----------	----		
19 -	----------	----		
20 -	----------	----		

WEAPONS

	NOMENCLATURE	AUTH	CAL AMMO	NO.	AVG RD /WPN	AVG MI /WPN
31 -	CARR.M125,81MM	9	81			
32 -	CARR.M106,107MM	4	4.2			
33 -	CARR.TOW	22	TOW			
34 -	LAUNCH.GREN	95	40			
35 -	LAUNCH.ROCK	9	66			
36 -	MG,VEH,MTD	97	50			
37 -	MG,GND,MTD	26	50			
38 -	MG,LT,M60	49	7.62			
39 -	PISTOL	116	45			
40 -	RIFLE,M16	731	5.56			
41 -	SUB MG	45	45			
42 -	TRACK,SU36	40	DGN			
43 -	----------	----	----			
44 -	----------	----	----			
45 -	----------	----	----			
46 -	----------	----	----			
47 -	----------	----	----			
48 -	----------	----	----			
49 -	----------	----	----			
50 -	----------	----	----			

OTHER EQUIPMENT

	NOMENCLATURE	AUTH	NO.	AVG MI/HR.
21	-RADAR,AN/PPS5	4		
22	-RADIO,AN/PRC77	12		
23	-GEN,5KW,60HZ	1		
24	-GEN,5KW,400HZ	4		
25	-GEN,1.5KW,60HZ	13		
26	-GEN,1.5KW,DC	2		
27	-COMP,(ALL)	5		
28	-RTT	1		
29	----------	----		
30	----------	----		

OTHER COSTS

	NOMENCLATURE	COSTS
1 -		
2 -		
3 -		
4 -		
5 -		
6 -		
7 -		
8 -		
9 -		
10 -		

REMARKS

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TAB G2A

Mech Inf Bn Ammo

	DESCRIPTION	ORT/ARTEP	QUAL/FAM	DODIC	RQMT		DESCRIPTION	ORT/ARTEP	QUAL/FAM	DODIC	RQMT
1	12 GA M9 SHOT	0	0	A014	------	2	12 GA M9 SHOT	0	0	A017	------
3	5.56 MM TR	2848	135000	A068	------	4	5.56 MM BALL	203900	221100	A071	------
5	5.56 MM BLANK	800	212230	A090	------	6	.22 BLNK/TNR M32	0	3900	A005	------
7	7.62 BLANK	0	120000	A111	------	8	7.62 4/1 TR	82796	196000	A131	------
9	7.62 BALL	10522	0	A193	------	10	7.62 MM TR	0	19500	A146	------
11	.45 BALL	12530	0	A475	------	12	.50 4/1 TR	46242	50000	A557	------
13	.22 PRAC CHG 1	0	675	A600	------	14	.22 PRAC CHG 2	0	675	A601	------
15	.22 PRAC CHG 3	0	675	A602	------	16	.22 PRAC CHG 4	0	675	A603	------
17	40 MM HE	1526	900	B568	------	18	40 MM PRAC	2214	0	B577	------
19	81 MM ILL	0	900	C224	------	20	81 MM HE	0	3000	C256	------
21	81 MM WP	0	600	C276	------	22	90 MM HEAT	154	150	C282	------
23	4.2 HE W/OFZ	0	1060	C705	------	24	4.2 ILL W/FZ	756	244	C706	------
25	4.2 WP W/PZ	0	200	C708	------	26	DRAGON	235	0	G039	------
27	FZ GREN HD PRAC	050	162	G070	------	28	GREN HD PRAC	050	162	G070	------
29	GREN HD FRAG	050	0	G001	------	30	GREN SMK HC	0	270	G930	------
31	GREN SMK GREEN	0	270	G940	------	32	GREN SMK YEL	0	270	G945	------
33	GREN SMK RED	0	270	G950	------	34	GREN SMK VIOL	0	270	G955	------
35	GREN HD CS	0	300	G924	------	36	GREN HD CS	0	0	G963	------
37	RKT 66 MM INCEND	201	0	H110	------	38	RKT 35 MM PRAC	1241	0		------
39	RKT 66 MM LAW	100	100	H557	------	40	RKT 35 MM LAW	4250	1692	H700	------
41	MINE AP M14	0	324	K121	------	42	MINE AP M18	0	150	K143	------
43	CAPSULE CS	0	100	K765	------	44	RC CS JEEPD	0	103	K768	------
45	SMK POT CS	0	35	K066	------	46	SIGNAL GSP	0	150	L305	------
47	SIGNAL GSP	0	0	L310	------	48	SIGNAL RSC	0	150	L306	------
49	SIGNAL WSC	0	150	L307	------	50	SIGNAL RSP	0	150	L311	------
51	SIGNAL WSC	0	150	L314	------	52	SIGNAL GSC	0	150	L314	------
53	SIG SMK WHT (MIN)	0	750	L340	------	54	SIG SMK GRN (M)	0	750	L341	------
55	SIG SMK RED (M)	0	750	L34	------	56	SIG SMK YEL (M)	0	750	L	------
57	FLARE TRIP	0	250	L495	------	58	SIM GRND BRST	0	575	L594	------
59	SIM BOOBY FLSH	0	150	L590	------	60	SIM BOOBY ILL	0	150	L599	------
61	SIM BOOBY SHTS	0	150	L600	------	62	SIM HD GREN	0	1770	L601	------
63	SIM ATOM EXPLO	0	10	L605	------	64	CHG DEMO 1/4TNT	109	370	M030	------
65	CAP BLST ELEC	0	050	M130	------	66	CAPBLST NON ELEC	109	370	M131	------
67	FZ BLST TIME	756	1512	M670	------	68	IGN TIME FZ	109	370	M765	------
69	FZ PD M557	0	1060	N335	------	70	MCDEYE	1	0	1405	------
71	GM TOW HEAT	11	0	1410	------	72	GM TOW PRAC	11	0	1410	------
73	BLST SIM TOW	7590	0	1337	------						

TAB C

FIELD ARTILLERY BN - 155 mm SP

VEHICLES

	NOMENCLATURE	AUTH	NO PART	AVG MI /VEH
1	CARR.CBT.6T	18		
2	CARR.CP.M577	10		
3	VEH.REC.LT	2		
4	TRK.CGO.5/4T	16		
5	TRK.AMB.5/4T	1		
6	TRK.CGO.2 1/2 T	19		
7	TRK.CGO.5T	1		
8	TRK.CGO.8T	18		
9	TRK.TOW	2		
10	TRK.UTIL.1/4T	29		
11	WRECKER.10T	1		
12				
13				
14				
15				
16				
17				
18				
19				
20				

WEAPONS

	NOMENCLATURE	AUTH	CAL AMMO	NO.	AVG RD /WPN	AVG MI /WPN
31	HOW.155.SP	18	155			
32	LAUNCH.GREN.	50	40MM			
33	LAUNCH.RKT	3	115			
34	MG.HB.VEH MTD	38	.50			
35	MG.LT	32	7.62			
36	PISTOL	23	.45			
37	RIFLE	585	5.56			
38	SUB MG	4	.45			
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						

OTHER EQUIPMENT

	NOMENCLATURE	AUTH	NO.	AVG MI/HR.
51	CHEMR.(ALL)	6		
52		6		
53		8		
54		7		
55		3		
56		4		
57	PIT	5		
58				
59				
60				

OTHER COSTS

	NOMENCLATURE	COSTS
1		
2		
3		
4		
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6		
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8		
9		
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REMARKS

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FIELD ARTILLERY - 155 SP
AUTHORIZED AMMUNITION & REQUIREMENTS

	DESCRIPTION	ORT/ARTEP	QUAL/FAM	DODIC	RQMT
1	[illegible]	0	0	A014	------
3	[illegible]	0	2072	A060	------
5	[illegible]	147000	800	A080	------
7	[illegible]	0	29448	A131	------
9	[illegible]	198	198	A365	------
11	[illegible]	3564	0	A367	------
13	[illegible]	4560	2128	A557	------
15	[illegible]	0	1200	B577	------
17	[illegible]	500	0	D086	------
19	[illegible]	4569	0	D581	------
21	[illegible]	576	0	D588	------
23	[illegible]	100	0	D589	------
25	[illegible]	100	0	D651	------
27	[illegible]	0	539	G091	------
29	[illegible]	500	0	G930	------
31	[illegible]	300	0	G935	------
33	[illegible]	50	0	G936	------
35	[illegible]	120	100	H557	------
37	[illegible] HE	100	0	L306	------
39	SIM GRN STAR CLUST	360	0	L319	------
41	[illegible] EXPL	10	0	L605	------
43	[illegible]	500	0	M130	------
45	[illegible]	0	0	M420	------
47	[illegible]	2160	0	M570	------
49	[illegible]	450	0	M744	------
51	[illegible]	600	0	M778	------
53	[illegible]	300	0	N111	------
55	[illegible]	0	1	1325	------

	DESCRIPTION	ORT/ARTEP	QUAL/FAM	DODIC	RQMT
2	12 GA #9 SHOT	0	0	A017	------
4	5.56 BALL	0	175512	A071	------
6	7.62 MM BLANK	95000	0	A111	------
8	7.62 MM BALL	0	12096	A143	------
10	14.5 MM 6 SEC	198	0	A365	------
12	.45 CAL BALL	0	1564	A475	------
14	40 MM HE	0	600	B568	------
16	155 MM ILL	480	0	D085	------
18	155 MM WP	10	0	D563	------
20	155 MM HE	3798	0	D594	------
22	155 MM RED SMK	100	0	D651	------
24	155 MM WP	223	0	D668	------
26	FUZE HD GR PRAC	0	539	G078	------
28	GR HD INCEND	45	0	G900	------
30	GREN SMK GREEN	300	0	G920	------
32	GREN SMK RED	100	0	G950	------
34	GREN HD CS	0	0	G965	------
36	35 MM SUB CAL LAW	2695	2695	H700	------
38	SIG RED STAR CLUST	360	0	L306	------
40	SIM PROJ GRND BRST	600	0	L594	------
42	CHG DEMO C4 1 1/4LB	50	0	M025	------
44	CAP BLAST NON ELEC	500	0	M131	------
46	COND DET	2755	0	M576	------
48	IGN TM FUZE	560	0	M606	------
50	FUZE MTSQ M501	400	0	M776	------
52	FUZE MT M557	2748	0	N439	------
54	PRIM PLNG M82	5615	0	N543	------

TAB C-3S

COMPOSITE STANDARD RATES FOR COSTING MILITARY PERSONNEL SERVICES

PAY GRADE	ANNUAL RATE	HOURLY RATE*
E-1	$ 6,561	$ 3.5503
E-2	7,557	4.0892
E-3	8,192	4.4329
E-4	8,958	4.8474
E-5	10,673	5.7754
E-6	12,663	6.8523
E-7	15,192	8.2208
E-8	17,777	9.6196
E-9	21,415	11.5882
W-1	14,528	7.8615
W-2	16,638	9.0032
W-3	20,039	10.8436
W-4	25,075	13.5687
O-1	12,231	6.6185
O-2	16,677	9.0243
O-3	21,395	11.5774
O-4	25,988	14.0628
O-5	31,521	17.0568
O-6	38,674	20.9275

*Hourly rate based on 1848 hour military man year.

TO BE PUBLISHED

TAB's I, J, K

CONTENTS OF TAB L
AMMUNITION COST PER RD BY TYPE BN FOR:

Armor Bn - TAB L1

Mech Inf Bn - TAB L2

Fld Arty (155 SP) Bn - TAB L3

ARMOR BN
AMMO COST PER ROUND

1	12 GA M7/9 SHOT	A014	9E-2
3	5.56 TRACER	A068	.12
5	5.56 MM BLANK	A080	7E-2
7	.22 BALL LR	A086	1E-2
9	7.62 4/1 TR	A131	.21
11	.45 BALL	A475	.1
13	.50 4/1 M2	A557	.69
15	40 MM HE	B568	3.6
17	105 MM HEAT	C538	141.74
19	105 MM HEAT-TPT	C511	99.31
21	105 MM HEP-T	C516	110.00
23	4.2 HE	C704	81.12
25	4.2 ILL	C706	98.13
27	DAGGER	G039	.34
29	FZ GREN HD PRAC	G087	.62
31	FZ HD GR PRAC	G924	6.93
33	GREN SMK GRN	G940	8.04
35	GREN SMK RED	G950	15.55
37	GREN HD CS	G924	6.93
39	RKT 66 MM LAW	H557	70.06
41	FZ MINE AT PRAC	K051	1.36
43	MINE AT PRAC M20	K231	19.01
45	SMK POT HC	K866	69.44
47	SIGNAL PSC	L306	15.08
49	SIGNAL PSP	L311	18.74
51	SIGNAL GSC	L314	15.85
53	SIG SMK RED (MINI)	L342	1.45
55	FLARE TRIP	L495	5.56
57	SIM GRND FLASH	L598	2.6
59	SIM GRND WHIS	L600	1.86
61	SIM ATGM EXPL	L605	401.14
63	SIMULTR GRN	M039	36.61
65	CAP BLST NON ELEC	M131	.32
67	SHAPED CHG	M421	57.48
69	FZ CAST TIME	M670	6E-2
71	FUZE PERC CAP M2	M810	2E-2
73	FUZE PROX	N412	45
75	GM TOW HEAT	1521	3169
77	BLAST SIM TOW	2566	.72
2	12 GA M7/9 SHOT	A017	.1
4	5.56 MM BALL	A071	8E-2
6	.22 SHT BLANK	A085	3E-2
8	7.62 MM BLANK	A111	.14
10	7.62 MM TR CTN	A140	.15
12	.50 4/1 TR M85	A520	.83
14	.50 BLANK	A559	.18
16	40 MM PRAC	B577	3.5
18	105 MM HEP-TPT	C510	76.92
20	105 MM WP	C512	111.69
22	105 APDS-TP-T	C520	145.18
24	4.2 HE	C705	87.07
26	4.2 WP	C708	85.15
28	GREN HD FRAG	G001	1.96
30	FZ HD GR PRAC	G900	9.25
32	GREN SMK HC	G940	7.76
34	GREN SMK YEL	G945	10.16
36	GREN SMK VIOL	G950	9.25
38	GREN HD CS	G963	7.5
40	RKT 35 MM SUB CAL	H749	7.05
42	MINE AP PRAC M68	K109	29.43
44	CAPSULE CS	K765	.21
46	SIGNAL GSP	L310	7.98
48	SIGNAL WSC	L307	14.52
50	SIGNAL WSP	L312	12.04
52	SIG SMK GRN (MINI)	L341	1.26
54	SIG SMK YEL (MINI)	L343	1.55
56	SIM GRND BRST	L594	2.32
58	SIM MOOR ILL	L599	2.36
60	SIM HD GREN	L601	1.17
62	DEMO TNT 1/4#	M030	.93
64	CAP BLST ELEC	M130	.62
66	COUPL NS F DEV	M427	6E-2
68	CORD DET	M456	.1
70	IGN TIME FZ	744	1.34
72	FUZE PD	N435	8.21
74	REDEYE	9723	9407
76	GM TOW PRAC	1527	3005

TAB L1

MECH INF BN
AMMO COST PER ROUND

1	12 GA #9 SHOT	A014	9E-2
3	5.56 MM TR	A060	.12
5	5.56 MM BLANK	A080	7E-2
7	7.62 BLANK	A111	.14
9	7.62 BALL	A143	.17
11	.45 BALL	A475	.1
13	.22 PRAC CHG 1	A680	5.7
15	.22 PRAC CHG 3	A682	5.7
17	40 MM HE	B063	3.6
19	81 MM ILL	C226	61.63
21	81 MM WP	C276	37.38
23	4.2 HE W/OFZ	C705	67.07
25	4.2 WP W/PZ	C708	85.15
27	FZ GREN HD PRAC	G078	.62
29	GREN HD PRAC	G091	1.96
31	GREN SMK GREEN	G950	9.04
33	GREN SMK RED	G950	15.55
35	GREN HD CS	G924	6.93
37	RKT 66 MM INCEND	H110	200.93
39	RKT 66 MM LAW	H557	70.06
41	MINE AP M14	K121	2.8
43	GRENADE CS	K765	.21
45	SMK POT CS	K866	69.44
47	SIGNAL GSP	L319	7.94
49	SIGNAL WSC	L307	13.52
51	SIGNAL WSC	L314	15.85
53	SIG SMK GRN (MIN	L340	1.19
55	SIG SMK RED (M)	L34	1.45
57	PUFF TRIP	L495	5.56
59	SIM BOOBY FLSH	L598	2.67
61	SIM BOOBY GRIS	L600	1.86
63	SIM ARTY EXPLO	L605	401.14
65	SIM MORT LOUD	M130	.92
67	FZ PROX TIMP	M470	6E-2
69	FZ PD M557	M335	8.21
71	GM TOW HEAT	1410	3169
73	PLST SIM TOW	1337	.72

2	12 GA #9 SHOT	A017	.1
4	5.56 MM BALL	A071	8E-2
6	.22 BLNK/TNR M32	A005	3E-2
8	7.62 4/1 TR	A131	.21
10	7.62 MM TR	A146	.17
12	.50 4/1 TR	A557	.69
14	.22 PRAC CHG 2	A681	5.7
16	.22 PRAC CHG 4	A683	5.7
18	40 MM PRAC	B577	3.5
20	81 MM HE	C256	35.94
22	90 MM HEAT	C282	91.44
24	4.2 ILL W/FZ	C706	90.13
26	DRAGON	G839	.34
28	GREN HD PRAC	G078	1.96
30	GREN SMK HC	G930	7.76
32	GREN SMK YEL	G955	10.16
34	GREN SMK VIOL	G955	9.25
36	GREN HD CS	G963	7.5
38	RKT 35 MM PRAC		0
40	RKT 35 MM LAW	H708	7.05
42	MINE AP M18	K143	26.23
44	RC CS JEEPO	K760	4.17
46	SIGNAL GSP	L305	17.48
48	SIGNAL RSC	L305	15.88
50	SIGNAL RSP	L311	10.74
52	SIGNAL GSC	L314	15.85
54	SIG SMK GRN (M)	L341	1.26
56	SIG SMK YEL (M)	L	1.55
58	SIM GRND BRST	L594	2.32
60	SIM BOOBY ILL	L599	2.36
62	SIM HD GREN	L601	1.17
64	CHG DEMO 1/4TNT	M030	.63
66	CAFBLST NON ELEC	M131	.32
68	IGN TIME FZ	M766	1.49
70	REDEYE	1425	9407
72	GM TOW PRAC	1410	3005

TAB L2

ARTILLERY BN 155 mm SP
AMMO COST PER ROUND

1	12 GA M7 SHOT	A014	9E-2	2	12 GA M9 SHOT	A017	.1
3	5.56 MM TP	A068	.12	4	5.56 BALL	A071	9E-2
5	5.56 BLANK	A080	7E-2	6	7.62 MM BLANK	A111	.14
7	7.62 MM 4/1 TR	A131	.21	8	7.62 MM BALL	A143	.17
9	14.5 MM 3 SEC	A365	3.68	10	14.5 MM 6 SEC	A366	3.68
11	14.5 MM PD	AJ67	3.29	12	.45 CAL BALL	A475	.1
13	.50 CAL 4/1/TR	A557	.69	14	40 MM HE	M569	7.6
15	40 MM PRAC	B577	3.5	16	155 MM ILL	D505	107.89
17	CHG PROP 155	D540	24.6	18	155 MM HE	D562	310.57
19	CHG PROP 155 WB	D541	29.2	20	155 MM HE	D564	70.08
21	155 MM HC	D548	172.48	22	155 MM RED SMK	D651	152.79
23	155 MM RED SMK	D549	182.28	24	155 MM WP	D570	88.76
25	155 MM YEL SMK	D551	162.79	26	FUZE MD GR PRAC	G878	.62
27	GREN HC FRAG	G801	1.96	28	GR MD INCEND	G900	9.05
29	GREN SMK HC	G930	7.76	30	GREN SMK GREEN	G940	9.04
31	GREN SMK YEL	G945	10.16	32	GREN SMK RED	G950	10.55
33	GREN HD CS	G924	6.93	34	GREN HD CS	G983	7.5
35	66 MM LAU M72	M557	70.06	36	35 MM SUB CAL LAW	M708	7.05
37	SMK POT HC	L306	69.44	38	SIG RED STAR CLUST	L306	15.88
39	SIG GRN STAR CLUST	L314	15.85	40	SIM PROJ GRND BRST	L594	2.32
41	SIM ATOM EXPL	L605	401.14	42	CHG DEMO C4 1 1/4#	M023	2.81
43	CAP NL ELEC	M130	.92	44	CAP BLAST NON ELEC	M131	.32
45	CHG DEMO SHPD 15#	M428	48.59	46	CORD DET	M456	.1
47	TIME FUZE	M670	6E-2	48	IGN TM FUZE	M766	7.34
49	FUZE MT M565	N248	24.12	50	FUZE MTSQ M501	N276	12.7
51	FUZE MTSQ M564	N278	29.18	52	FUZE TD M557	N335	8.21
53	FUZE PROX M514	N411	44.39	54	PRIM PERC M82	N923	.73
55	M [illegible]	1423	9407				

TAB 13

MACOM COST FACTORS

	USAREUR	FORSCOM
Program 2 Mission (Fired)	_____	_____
Program 2 Base Ops (Variable)	_____	_____
Program 2 Base Ops (Fixed)	_____	_____

TO BE PUBLISHED

TO BE PUBLISHED

TAB N

INDIVIDUAL TEST PLANS

CORE TEST OBJECTIVES

A. CONTINUE VALIDATION OF THREAT ORIENTED CRITICAL SM/ARTEP TASKS, CONDITIONS, STANDARDS.

. CHALLENGE: Continuation of critical task identification through documented front-end analysis for weapons/equipments and units/jobs is an essential part of the Army Training System.

. CONCEPT: Training analysis will continue to form the basis for training development decisions. Modification to training analysis methodology will be limited to that necessary to insure continuity with situational variables and other core objectives.

B. DETERMINE TIME/COSTS TO ACHIEVE OPTIMAL PROFICIENCY FOR CRITICAL INDIVIDUAL/COLLECTIVE TASKS.

. CHALLENGE: To justify training resource requirements, it is necessary to quantify costs attributable to attaining optimal proficiency. Once these costs are established, resources to support training requirements/missions allocation and reallocation between the training base and units in the field can be made rapidly and accurately.

. CONCEPT: The ARTS developed training resource methodology will become a part of training development methodology.

C. CONTINUE TO DEVELOP DIAGNOSTIC TESTS TO MEASURE INDIVIDUAL/COLLECTIVE LEARNING DECAY LEVELS.

. CHALLENGE: Individual/collective learning decay rates must be determined for each weapon and equipment system/unit/job in order to quantify existing proficiency levels and to fund retraining requirements to obtain optimal proficiency.

. CONCEPT: Training analysis during testing is to be designed to measure skill acquisition and learning decay over time by use of diagnostics and retraining time. Development of diagnostic testing is critical to success as retraining requirements must be based on the Delta between proficiency attained at completion of training and subsequent residual proficiency. In other words, we retrain only that which has been lost, not that which has been retained.

D. DETERMINE DECAY RATES AND FREQUENCY OF RETRAINING REQUIRED TO SUSTAIN OPTIMAL PROFICIENCY FOR INDIVIDUAL/COLLECTIVE TASKS (TIME/COSTS).

. CHALLENGE AND CONCEPT: See Objective C above.

CORE TEST OBJECTIVES
EEA

A. Continue validation of threat oriented critical SM/ARTEP tasks, conditions, standards.

1. Are SM tasks/ARTEP events based on the documented results of appropriate front-end analysis techniques?

2. Are ARTEP events supported with prerequisite SM tasks?

3. Was performance of SM/ARTEP tasks actually necessary for the accomplishment of a specific mission? (i.e., was it truly a critical task?).

4. Is the specific level of proficiency greater than, equal to, or less than that required to meet the threat?

B. Determine time/costs to achieve optimal proficiency for critical individual/collective tasks.

1. What resources are required in the institution?

a. Dollars
b. People
c. Time
d. Dollars and people
e. Dollars and time
f. People and time
g. Dollars, people and time

2. What are resources required in the unit?

a. Dollars
b. People
c. Time
d. Dollars and people
e. Dollars and time
f. People and time
g. Dollars, people and time

3. Does the collected data reflect deviation from real-world normalcy, i.e., validity of trainee/instructor, NCO/officer fill, unusual environmental constraints or advantages?

C. Continue to develop diagnostic tests to measure individual/collective learning decay levels.

1. Do current diagnostic tests account for learning/decay which occurs subsequent to course/period of instruction?

2. Does the diagnostic test program provide for testing at two or more data points? (i.e., 30, 60 & 180 days after training).

3. Do diagnostic tests provide data to determine specific skill/proficiency loss and retraining to proficiency required? (i.e., make the corrective action obvious).

4. What is the training resource requirement to reacquire mastery after various intervals subsequent to the original training program? (Note: All training activity, or lack thereof, must be considered.)

D. Determine decay rates and frequency of retraining required to sustain optimal proficiency for individual/collective critical tasks (time/costs).

1. What is the time to initially learn a skill to mastery?

2. After specified intervals without practice what is the time required to relearn a skill to mastery?

3. Within task performance, which elements are forgotten first?

4. What is the frequency of retraining or practice necessary to ensure retention of acceptable levels of proficiency?

1. Reduce Length of Selected Courses for High Density/Low Technology MOS's vs. Low Density/High Technology MOS's

2. Resources/Effect of Training Common vs. Technical Skills Only in Institutions

Not used in TEA 78

3. Optimal Allocation of Training Tasks Between Institution/Unit

• CHALLENGE: Resources required to train to proficiency in collective/individual tasks vary as a function of the type task. Acceptable levels of decay in proficiency vary with the missions assigned to the unit. It is necessary to identify required resources, rates of decay for critical tasks, and retraining frequencies. Such determination will form the basis for allocation of training resources.

• CONCEPT: Data should be extracted, as available, from tests as to time and training methods to train to individual proficiency. Post training diagnostic tests administered to determine proficiency decay over time of critical skills can be one indicator of training best conducted in the unit or institution. Skills with lengthy retention, best taught with sophisticated training aids are best taught in the training base. Conversely, skills of short retention with hands-on practice required to maintain proficiency are best taught in the unit. This determination will be a function of the degree of simulator/instructor intensive support required and the rate of past training decay. (See TRADOC Pamphlet 350-30)

4. Validate Selected Critical Tasks For Service School Development of How to Train to Combat Proficiency at Least Cost in a Unit

Not used in TEA 78

5. Impact of Transfer of Selected AIT to FORSCOM

• CHALLENGE: To determine a cost efficient policy for training entry level soldiers to proficiency in common and MOS related skills. The feasibility of providing only basic training for selected skills in the training base needs to be tested.

• CONCEPT: The test would be conducted by providing to units, replacement personnel in selected MOS, who have completed only common skills basic training. The unit would be required to train all such personnel to proficiency in MOS related skills without increase in current ALO. TRADOC schools will provide the training packages and MTT's to ensure supervisor competence as required. Training within the unit should be conducted on a schedule as desired by the commander, excepting that proficiency required be as established by the proponent school. Evaluation of comparative costs and the effects of this additional training load on unit readiness will be determined by comparison to OSUT costs/proficiency with a baseline unit and by test agency evaluation of resultant individual and unit proficiency.

6. Impact of Transfer of BT to FORSCOM

7. Impact of Transferring all Entry Level Training to FORSCOM

8. Impact of Transfer of all Except Critical Task Training to FORSCOM

9. Impact of Transfer of all Except High-Technology Task Training to FORSCOM

10. Effect of Expanded BT to Develop Cross Training in Support MOS

Not used in TEA 78

11. Effect of Expanded OSUT for Selected High-pri Weapons

• CHALLENGE: To determine a cost efficient policy for training selected entry level soldiers in common and high priority weapon system skills. The effect on unit training and costs of providing training to maximum proficiency on critical tasks in the training base needs to be tested.

• CONCEPT: The test would be executed over an extended period by conducting entry level training to varying levels of proficiency by expanding selected OSUT. Testing will involve control and test groups. Post graduation testing to determine learning decay/retraining rates between test and control group will provide data needed to design training programs. These programs provide a basis for timely resource distribution to ensure enhanced individual skill proficiency and retention for high priority weapons systems.

12. Determine Exportable/Job Training Packages Required to Support Training in Units

• **CHALLENGE:** To rapidly train, sustain or retrain soldiers/units in skills when the situation does not permit conventional training or when the skill can be more adequately taught by use of training packages.

• **CONCEPT:** The concept is to prioritize skills which are critical and then teach these skills in an intensively structured series of indiv/collective training periods. Maximum use of training will be made. Testing will center on comparative analysis of costs and proficiency attained over time against a baseline of similar proficiency levels attained through conventional training. Consider the following in sequence:

a. Job performance aids

b. Self-teaching, exportable packages

c. Formal/supervised OJT programs

d. Installation (shadow) or unit school

13. Determine Training Packages to Assure Supervisor Competence

14. Determine MOS Transition Training on Proficiency on New Equipment/Job

15. Determine Resources Required to Attain Unit Collective Proficiency (T_A)

Not used in TEA 78

16. Effects of Personnel Stability/Turbulence on Individual/Collective Proficiency

• CHALLENGE: Lack of personnel stability results in lengthened training/retraining time to achieve collective proficiency in critical task skills as well as accelerated decay of collective proficiency.

• CONCEPT: Testing the effects of turbulence and stability envisions introducing controlled turbulence or quantifying existing turbulence in the training environment (within crews and within companies) and then measuring the proficiency decrease in contrast to the proficiency of more stabilized crews/units. This should permit determination of the increased resources and time necessary to attain and maintain individual/collective proficiency when there is high personnel instability by determining the level of over-training required to maintain a desired level of proficiency. Consider also:

a. Effects on unit training programs (continuity)

b. Effects on development of leadership

c. Attitudes on training such that retraining frequency is changed.

17. Determine effects of Reduced Officer/NCO Fill on Collective/Individual Training

• **CHALLENGE:** A low percentage of officer/NCO fill interacts with other unit training distractors (turbulence, troop diversions, auth absences, etc.) to degrade training effectiveness and proficiency.

• **CONCEPT:** Testing the training effects of officer/NCO fill variables requires evaluation of fill variation in conjunction with testing. Data will be extracted to enable determination of the resources necessary at different levels of officer/NCO fill to attain individual/collective critical task proficiency and to establish the type and frequency of retraining necessary to maintain that proficiency.

18. Effects of Introducing Less Capable Personnel into the Training Base and Units

- **CHALLENGE:** The AWC SSI study on Army 85 predicts the typical incoming soldier of 1985 will be less capable of mastering complex training than his comparable peer today.

- **CONCEPT:** Testing the effects of less capable trainees envisions special attention under controlled conditions, to determine the problems which result. Testers should identify less capable personnel participating in test activities and seek to determine the additional resources needed to bring these soldiers to average proficiency. The effects that application of these additional resources have on other trainees and unit training programs should also be quantified. A range of solutions applicable to a specific set of tasks, conditions and standards should be obtained. Data will be extracted to assist in determination of personnel selection criteria.

19. Evaluation of Rapid Refresher Training Programs for Reserve Component Units

- CHALLENGE: Reserve Component units must be rapidly trained up with refresher training to peak critical task skills prior to deployment. (Pre and post M-day)

- CONCEPT: Train-up packages for critical systems and units must be designed, fielded and validated for Reserve Component units. Packages must be designed such that training can be accomplished by RC trainers. They must produce units trained to combat proficiency in the shortest time, both pre and post mobilization. After the packages have been validated at company level, battalion level packages will be developed. In addition, further packages must be devised to rapidly train up troops who, after deployment, are issued new and different equipment. Training packages (modular training) will be administered to RC units. Post training proficiency will be measured against baseline units trained under existing RC programs. Costs to proficiency and levels of proficiency will be compared to validate training modules and to provide necessary feedback to modify modules as necessary.

20. Develop Training Concepts to Individual/Collective Proficiency with Reduced Resources

• CHALLENGE: Training systems must be devised to enable the institution and units to train to proficiency within decremented resources.

• CONCEPT: Training programs for testing will be analyzed to identify use of advanced or innovative training techniques which result in a degree of proficiency at reduced resources. The effectiveness of these innovative programs should be validated during testing and reports prepared which document fully the resources, training events and level of proficiency attained. Where possible, decay rates for proficiency thus obtained should be determined and compared to conventional training decay.

21. Develop Replacement (D+30 to D+180) Unit Upgrade Training Programs

22. Determine Training Required to Exploit the Enhanced Capability Designed into Modernized Equipment

23. Determine Optimal Use of Equipment Pools to Support AC/RC Unit Training

24. Develop Training Programs to Assimilate New Equipment in Units

Not used in TEA 78

25. Validate Effectiveness and Efficiency of Training Devices

- **CHALLENGE:** Training devices are developed in concert with the major system they are designed to support. Care must be taken to ensure that skills developed on training devices are reliably transferable to the actual system. Further, these skills must be those necessary for development of proficiency.

- **CONCEPT:** Testing will be designed to compare individual/collective performance of actual tasks after training on training devices. A comparison to training conducted exclusively on the real equipment and in mixes of devices and real equipment will be made. Costs to proficiency will be compared and use of training devices to reinforce and retrain decayed skill will also be measured.

26. Develop Training Programs to Conduct Continuous Combat

Not used in TEA 78

DEPARTMENT OF THE ARMY
HEADQUARTERS US ARMY TRAINING STUDY
FORT BELVOIR, VIRGINIA 22060

ATCG-ATS

24 MAR 1978

MEMORANDUM FOR RECORD

SUBJECT: TEA 78 Tests

1. Purpose: To record agreements concerning the TEA 78 Tests between the SWT and ARTS Gp and to provide for responsibilities for add ons or additional testing.

2. Agreed Actions:

a. M60A1/XM1 Tests

(1) The ARTS Guidelines for SWT Reports were accepted for implementation subject to any clarification which may prove necessary after further study.

(2) The following tests were reviewed and changed as indicated:

(a) Tank Crew Turbulence Research

1 Baseline correlation will include the five Armor Bns of the 1st AD.

2 Final reports will include:

a Tank crew turbulence test results, 10 Jun 78.

b Demographic data on firing crews (AIR) TBD.

c Results of train-up 11E (CDEC), 1 Jul 78.

d HumRRO Costs to proficiency 1 Jul 78.

3 Interface w/TEA 85 core objectives/variables has been accepted by ARI.

(b) Proficiency & Retention

1 Objective 3 is not being met. Units are not complying with requirements to record training from date of assignment.

2 Sample sizes are reduced from 300 to from 200 to 300.

3 Interim report date was deferred from early April to mid-April. Final report date was postponed to mid-June 78.

4 Variable 18 was added to T_I & T_S.

5 Core objectives A & B were deleted from T_A as unobtainable due to test design & unit noncompliance.

(c) Modular Training for RC.

1 Sample size was reduced from 108 TK crews to 90 crews in 3 Bns.

2 Table VIIC Scores were added to data.

3 All retention/decay deliverables were deleted as unobtainable due to test design.

(d) M60A1 WSTEA: The data from M60A1 WSTEA will be inputted to TXM to determine if a delta in force exchange does exist in a pure tank on tank situation. If a delta does exist, the data will be run in the CARMONETTE combined arms model to determine combined arms combat effectiveness.

(e) M60A1 Scaled Range Subcaliber test:

1 The Test was expanded to two phases: Phase 1 tests 40 crewmen of the 194th Armored Bde by firing a modified table IV and table VI; Phase II includes the original firing program, except that the the sample has been reduced from 480 to 400.

2 Phase 1 interim report data has been established as 30 Aug 78 with the final report completion estimated as 9 Nov 78. Report dates are contingent on start date of 15 May. This start date may conflict with AOB/BAT/BNCOC training.

(f) Training Time Ratio: No changes were made. COL R. Maxham provided initial test concept papers which will be reviewed by ARTS and coordinated with the ARTS Battalion Training Survey and General Survey.

(g) XM1 OTII: No change was made in the test objectives nor in the situational variables. It is clear, however, that ARI support to develop and field a test to determine core objectives/situational variables is necessary. Appropriate HRN has been submitted to ARI by ARTS through TRADOC DCS-T.

b. REDEYE Engagement Test:

(1) The ARTS reporting format was not accepted, by USAADS because much effort has already been expended in comparative data in the USAADS format. However, the modular data assembly concept will be complied with.

(2) It was agreed that an interim report would be furnished on 1 Jul 78. That report will be essentially a draft of the final report and will contain data available at the time that the report is prepared.

(3) The work sheets and summary sheets were updated and modified as follows:

a. Update of the participating units to include 5ID, 7ID and 24 ID. The field testing schedule was also updated.

b. Variable 19 was modified to reflect that if would provide only insights into post-mobilization training.

c. TOW Tests:

(1) Delete Variable 11 from TOW/ITV Training Weaknesses as without an OSUT, the impact of an "expanded OSUT" is considered confusing. Same information will be apparent but in context of "initial OSUT".

(3) Interface of TRASANA war model to core objectives/variables should be addressed with TRASANA.

(4) Delete Variable 3 from TLAT test as USAIS conducts no institutional training for RC units per se. RC units can attend AC institutional training. The problem is in the semantics and the same information will be produced and reported.

(5) Variable 18 is defined as selection from any group, not CAT IV per se.

(6) Add Variable 25 to ITV test.

d. FO/Unit Training Tests:

(1) An interim report on test progress will be provided to ARTS as of 1 July 1978. This report will provide current status of the test and any data that is of significance and available on that date. It is recognized that available data will be limited because of the close proximity of the report to the data collection period. (15 May to 15 June)

(2) Three surveys/questionnaires/tests are involved in this test.

(a) FO Unit Training Management Survey -- This is to be administered as a structured interview at the unit. The required data collection from unit training records to be used for this interview will be forwarded to the unit in advance and the 12 months to be looked at will be specified.

(b) FO SQT format written exam on "Call for, and adjustment of fire techniques." This exam is to be administered to individual FO's.

(c) FO Questionnaire. This will develop opinions of the adequacy of the unit training programs as well as the demographic data on the test population.

(3) Changes to ARTS Summary Sheets. Variable 17 was removed from T_S because it is not really measured by the test procedures. Core B was reworded to reflect, "as reflected by unit training schedule information."

e. OFT CTEA w/expansion TEA 78 and 13 F Export Analysis.

(1) An interim report will be forwarded to ARTS as of 1 July 1978 providing current status and any data available on that date. It is recognized that, because of the late arrival of the OFT device at Fort Sill (30 Apr-15 May current projected time), and the late availability of classes for testing, only limited data will be available on 1 July 1978.

(2) Six separate surveys/questionnaires or tests are being used as part of this test.

(a) Institutional/unit background questionnaires. These will gather demographic and background data on test population.

(b) STEP Test. This standard math test permits random class groupings with respect to math aptitude.

(c) Observed Fire Exam. This exam was specifically developed to test level of knowledge of observed fire procedures prior to initiation of training as part of this test. This information will be used along with math scores to insure random placement.

(d) Institutional/Unit opinion questionnaire. This questionnaire develops the test population opinion of the training devices used as a part of the test.

(e) The final course exam on observed fire along with the live fire mission grades will be accepted as the proficiency level at the end of the training test being conducted.

(f) Instructor Questionnaire. This will develop the opinions of the instructors as to the effectiveness of the training devices being tested.

(3) There are several changes to the sample sizes. Changes to school class sizes from 120 to 200 for the officer class and from 20 to 20-50 for 13F classes, are based upon updated projections of class sizes. Changes to unit sample size reflect the addition of the approved support of 63 personnel for the basic OFT CTEA. Fort Sill is requesting 63 additional personnel from FORSCOM for the CTEA expansion. They would accept 33 additions if assured of the 30 from the ARTS effort. The desired sample size for the test is 125.

(4) Core C was modified to reflect a measure of proficiency only because the beginning and ending tests are not comparable and cannot be used to provide a delta measurement of proficiency. Variable 19 was modified to reflect insights into devices which might be used for RC training. It does not test RC personnel as such. Variables 3 and 5 more correctly belong in the 13F Export-Analysis and were deleted from the OFT CTEA expansion. They are listed in the 13F export analysis.

(5) Because the OFT CTEA includes a comparison of OFT, BT-33 and FOT to determine the most efficient and effectual device for training, an exportable package cannot be developed until the CTEA is completed and the best simulator determined

f. 63C/H CSS MOS Test

(1) The 63C/H test effort is proceeding IAW the December 1977 SWT plan.

(2) SQT administration for MOS 63C and H has been slipped by DA to the May-July 78 time frame. Computer processing will add a minimum of 6-8 weeks. As a result, comparison of SQT results with test data will not be available until August 1978.

(3) The identification of collective proficiency capabilities will become part of follow-on efforts to be completed after August 1978. This is an agreement with the December 1977 plan. This effort should be incorporated into TEA 85.

(4) Official USAOCCS agreement on the SWT/ARTS Deliverable Summary Sheets is limited to material appearing in the Test Activity column. While advice concerning the potential interface with TEA 85 has been provided, extension of the USAOCCS into TEA 85 will require specific tasking through TRADOC channels IAW the approved Five-Year Test Plan.

g. 05C/F MOS Test

(1) Subject to the availability of historical resource data, and unit training resource methodology, all 05C tests will encompass Resources to Proficiency in the ARTS Model.

(2) Regarding the comparison of self-paced and group-paced courses, Variable 25 was deleted because there are no training devices in either course.

h. CAMMS

(1) The ARTS Guidelines to SWT Reports were accepted for implementation and will be used to structure CAMMS test reports to ARTS.

(2) The CAMMS test was reviewed and the following changes were made:

(a) Test objective 1 was deleted and the following objective inserted: "Measure effectiveness of CAMMS as a training Method."

(b) Test object 4 was caveated to tie it to long term evaluations tied to use of the NTC.

(c) The interim report date was deleted as testing will not be completed until 15 May. The final report date for the short term effort was confirmed as 1 July 1978.

(d) All interface w/TEA 85 core objectives and situational variables were accepted subject to the following clarification: The short range study report of 1 July 1978 will cover only resources to level of proficiency attained. Data concerning programs to proficiency (number and interval between iterations), learning decay and frequency of retraining and validity of CAMMS skill transfer to actual operation can only be obtained in the TEA 85 program. In the interim, CATRADA/CAMMS will develop/explore and report the TEA 85 type issues to the level of resolution supportable by the data.

i. Cannon Crew Turnover

(1) The validation of this test was conducted on 17 March 1978. The test appeared to be well conducted with only minor problems which involved some additional training for scorers. Dr. Goldberg of ARI, is aware of this and will take corrective actions.

(2) The TEA 78 team will request a draft report of the results of this validation test from HQS ARI.

(3) The actual test is scheduled for August 1978 at Fort Lewis, WA, with two 9ID close support FA Bns.

j. TACFIRE POST OT III. The turbulence tests on TACFIRE OT III crews were not accomplished. Some limited data should be available by 1 July 1978 from tests on new crew members who will graduate from Fort Sill on 17 April 1978. Dr. Sanders, ARI field office, Fort Hood, TX, indicated ARTS should request a draft copy of both the ARI Post OT III report and the follow up turbulence tests from ARI, HQS. TEA 78 team has requested these reports.

3. Unresolved issues.

a. ARI acceptance of the TEA 85 objectives/situational variables is dependent on further study.

b. Final report dates for the demographic portion of the tank crew turbulence test must be coordinated w/AIR and Dr. J. Shields, ARI.

c. Command action is necessary to obtain support of FORSCOM/USAREUR commanders for the documentation of time/resources/training in support of the proficiency and retention tests.

d. ARTS must work w/the SWT to develop operation and scaling for the training time ratio test. These must be coordinated w/the Battalion Training Survey and the General Survey.

e. REDEYE Test. USAADS requires assistance in obtaining approval to visit the REDEYE sections of the Berlin Brigade during firing in Spain. There is a quota limitation on the number of US troops in Spain which will be at its upper limit during the period of the visit. USAADS/TRASANA will keep ARTS informed.

f. TOW TEA Ph results with "minimum" training program suggests TEA may stop after 90 missiles. Decision hinges on 23-25 March firings.

g. FO Unit Training Test. The support of this effort by TRASANA is still under negotiation between USAFAS, Fort Sill and TRASANA, White Sands.

h. CSS MOS 63C/H TEA.

(1) The initial planning estimate to complete the 63C/H effort was $23,000. Of this, $5,000 was funded locally and a request was forwarded to TRADOC for $18,000. TRADOC increased the travel allocation for the USAOCCS by $15,000. Funds in this amount were diverted to the ARTS effort from other USAOCCS funding allocations. TRACOC indicated that the additional $3,000 would be addressed at the FY78 BER.

(2) Due to the large amount of data to be gathered from each individual tested, it was determined during the validation testing that an additional day had to be added to the period of time spent in each division and that one person had to be added to the testing. Additional on-site test preparation time has also been determined to be necessary. This resulted in an additional cost of $5,300 which raised the total ARTS cost to $28,300.

(3) While the USAOCCS recently experienced a TRADOC-wide 10 percent cut in travel funds, the portion of this sum which applies to ARTS will be absorbed by the school by deleting other

high priority evaluation efforts. This still leaves a shortfall of $8,300. If the shortfall of $8,300 is not funded, testing planned at USAREUR, Fort Riley and Fort Hood (49th Armed Div) cannot be executed.

(4) DARTS support at TRADOC level to obtain these additional funds is requested. In the event these funds are not provided, DARTS guidance regarding changes to the test plan will be requested.

(5) If additional funding is not provided, 1st ID testing willbe cancelled. This would result in a reduction of the data base by 25%.

i. 05C/F MOS Test

(1) 05C/F OSUT start delayed until May. SWT estimates OSUT graduate data collection from 1 July-15 September. Accordingly, SWT estimates final report for this test to be 15 Sep 78.

(2) Due to travel fund constraints 05C testing in the 9th ID and 1st AD has been cancelled. Testing will be conducted in the 24 ID and 49 AD (ARNG).

j. CAMMS TESTING

(1) The sample size has been once again reduced from the original 10 Bns to 5. Of these, 3 are from 4th ID and 2 from 1st ID. This is caused by commitments of 1st ID Bn.

(2) CATRADA needs guidance from TRADOC as to implementation of CAMMS/NTC follow-on tests in TEA 85 so as to better coordinate & execute TEA 78 testing.

k. BATTLE

(1) TRASANA has no plans for using "BATTLE" in a test mode to determine what is taught through its use. It was agreed, however, that a test could be developed using the following concept.

a. Issues

1 How can BATTLE be adapted to a training role?

2 Stop action/on-line critiques.

3 Special operations - River Crossing, smoke, mine field clearing. Use of CAS, FA?

4 Standardized scoring procedures need to be developed.

5 Mission specific scenarios, attack, defend and delay need be developed.

6 A baseline for acceptable performance should be established.

7 Can we determine existing skills in weapons employment? (i.e. in use of tanks, armor use of infantry.)

b. Costs to play Battle per Bn Cmd Group. Time is 5-7 working days per Bn Cmd Group, with terrain board & computer.

c. Test sample size - 8-10 Bns tested twice each with a short time interval (2 weeks?) between tests.

d. Methods for measuring (quantifying) training value of BATTLE.

0. Play ARTEP and measure performance. (Cmd Gp module)

1. Questionnaire aimed at the basic question "what was learned during play of BATTLE?" (CATRADA doing this in conjunction w/DRS)

(a) Administered post play period.

(b) Cluster analysis of answer.

1a In parallel with step 1 develop by analysis a list of areas in which learning is expected to occur by playing BATTLE.

1b Take union of step 1 and 1a as the list for 2.

2 Develop standard test that can be used pre and post play that covers the list produced by step 1b.

3 Use data from BATTLE to check those clusters from step 1 and other elements from step 2 for which the data is applicable.

4 Play ARTEP and measure performance.

5 Use feedback to change BATTLE ARTEP or Pre-Post test.

e. Three options exist to execute the BATTLE test within context of TEA 78.

OPTION A

TRASANA design test (would cause delay in ongoing efforts for ARTS).

CATRADA conduct tests w/Cmd Groups

(CATRADA has three battle sets)

TRASANA Analyze Results.

OPTION B

TRASANA Continue to march for ARTS as per DPCS (under a revision to this DPCS as is currently being proposed by TRASANA)

CATRADA Execute entire program.

OPTION C

Either A or B above w/ARI designing test & assisting in analysis.

(2) TRASANA position on use of war models to CE.

(a) Analysts do not know which tasks should be incorporated in CARMONETTE and other models do not appear appropriate.

(b) Analysts need a list of SM/ARTEP tasks and varying levels of proficiency to put in the model.

(c) TRASANA management feels ARTS requirements should be integrated in the TRASANA Model Improvement Program. The Bn model improvement group works under TRASANA agis-Div Model group is under CACDA. This suggestion has been adopted and testing of "Battle" training value will be deferred to a follow-on period.

3. Actions/Decisions.

ATCG-ATS
SUBJECT: TEA 78 Tests

a. LTC Shambayer requested ARTS guidance (since ARTS is funding TEA 78 CAMMS) as to actions to be taken if one or more principal staff fail to report for CAMMS testing w/the Bn and Group. LTC Bloedorn decided that judgement must be used in all cases, but when it became clear that unqualified players or unacceptable absences would contaminate the data, that CATRADA should cancel and save the money, This policy should be announced during coordination sessions to assist unit commanders in assigning priorities.

4. Actions Required:

a. Action should be taken by ARTS/TRADOC DCS-T to schedule three additional combined Arms Bns for CAMMS testing ASAP to ensure minimum sampling by 15 May.

b. Coordination should be made with TRADOC DCS-T to determine when CATRADA will receive necessary guidance to ensure continuity between TEA 78 & TEA 85.

c. FO UNIT TEA/OFT/13F TEA 78.

(1) Validation of the 13F Course of Instruction must be accomplished prior to the test of the training devices. Because of shortfalls in 13F course fill, the COI's earliest validation will occur on or about 5 June. USAFAS must complete this validation procedure.

(2) Each of the OFT's can train 15 students per class. Plans call for 24 hours of instruction per class. This requires careful scheduling of the OFT's since only two are expected to be available. This also assumes minimum down time for the system. USAFAS must manage these factors and keep ARTS informed of slippage.

(3) Authorization message allowing Fort Sill to coordinate dates and arrangements with the field should be transmitted.

e. O5C TEA 78.

(1) A formal request to test in 24ID has been initiated by ARTS.

(2) SWT will update/finalize test plan and forward to ARTS ASAP.

f. CSS TEA 78.

(1) Obtain additional travel funds or modify SWT test plans. DARTS support is needed at TRADOC level.

(2) Decision to modify test schedule should await TRADOC funding guidance.

5. Proposed ARTS Test Site Visits.

a. M60A1 Tests: TBD

b. REDEYE

(1) 24-28 Apr 78 - 8ID, Flint Hen, GER

(2) 24-28 Apr 78 - 101 ABD, FT Bragg, (RELS, LIVE REDEYE)

(3) 9 May 78 - 3 ACR, Ft Bliss, (RELS)

(4) 11-12 May 78 - 7ID, Ft Ord

(5) 14-19 May 78 - 9ID, Ft Lewis, (RELS)

(6) 16-23 Jun 78 - 2AD, 1 CAC Ft Hood, (RELS)

c. TOW test site visits: TBD

d. FO/OFT Test visit: TBD

e. CSS/63C/H Test visit:

(1) 17-20 Apr 78 - 8ID, USA EUR

(2) 12-15 Jun 78 - 49AD (ARNG) Ft Hood

f. 05C Test visit: 24ID TBD

for GARY BLOEDORN LTC, FA
LTC, AR
CH, TEA 78 TM, ARTS

END

DATE

FILMED

DTIC

JULY 88